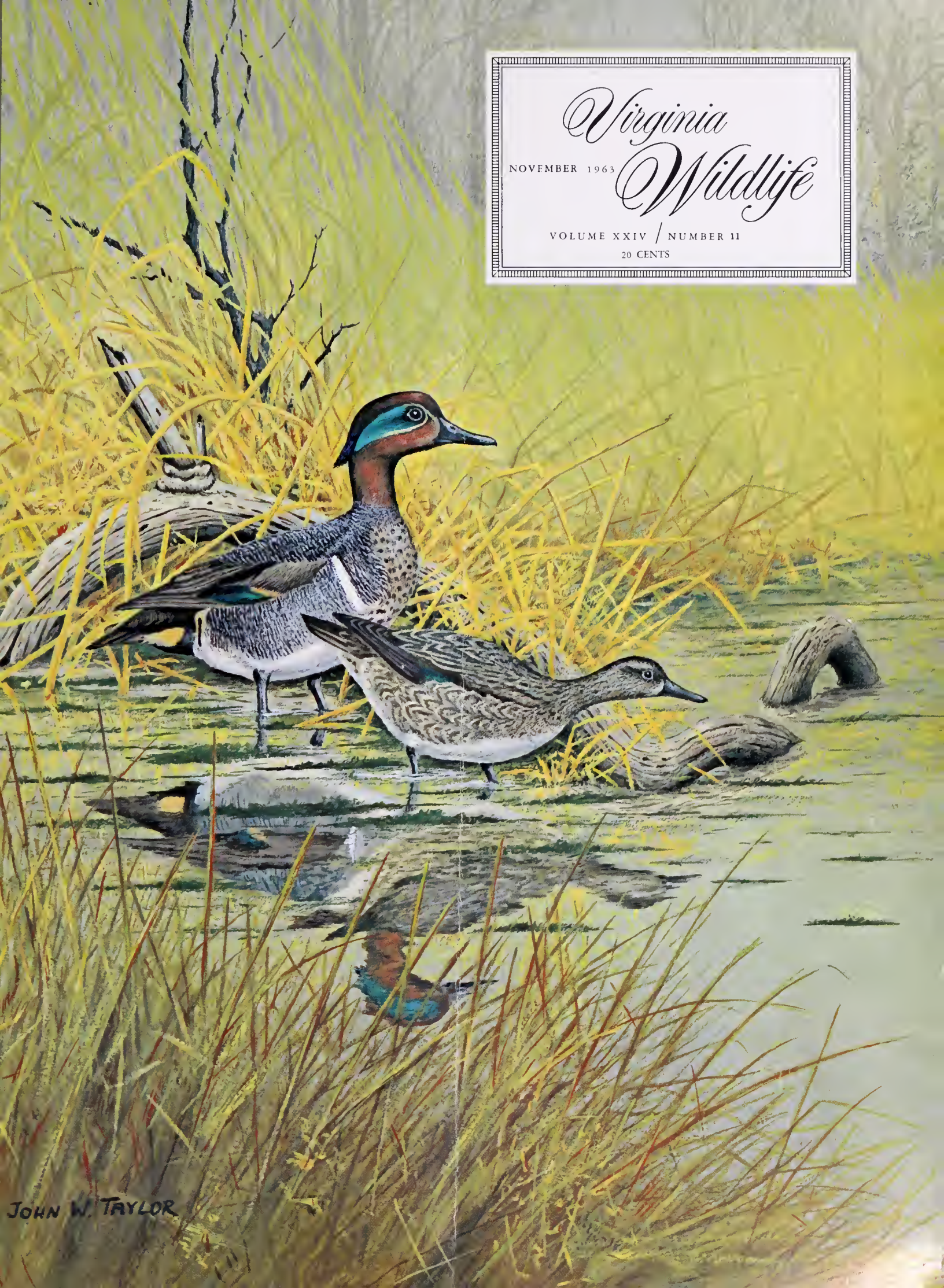
NOVEMBER 1963

Virginia Wildlife

VOLUME XXIV / NUMBER 11
20 CENTS



Virginia Wildlife

Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources and to the Betterment of Outdoor Recreation in Virginia

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, *Richmond 13, Virginia*

COMMONWEALTH OF VIRGINIA

ALBERTIS S. HARRISON, JR., Governor

Commission of Game and Inland Fisheries

COMMISSIONERS

T. D. WATKINS, *Chairman* . . . . . Midlothian
J. C. AARON . . . . . Martinsville
H. G. BAUSERMAN, SR. . . . . Arlington
A. REE ELLIS . . . . . Waynesboro
R. R. GUEST . . . . . King George
R. G. GUNTER . . . . . Abingdon
J. C. JOHNSON . . . . . Newport News
DR. E. C. NETTLES . . . . . Wakefield
I. T. WALKE, JR. . . . . Norfolk
HOLMAN WILLIS, JR. . . . . Roanoke

ADMINISTRATIVE OFFICERS

CHESTER F. PHELPS, *Executive Director*

RICHARD H. CROSS, JR. . . . *Chief, Game Division*
ROBERT G. MARTIN . . . . . *Chief, Fish Division*
LILLIAN B. LAYNE . . . . *Chief, Fiscal Division*
JAMES F. MCINTEER, JR. . *Chief, Education Division*
JOHN H. MCLAUGHLIN . *Chief, Law Enforcement Div.*

PUBLICATION OFFICE: Commission of Game and Inland Fisheries, 7 North Second St., Richmond 13, Va.

JAMES F. MCINTEER, JR. . . . . *Editor*
ANN E. PILCHER . . . . . *Editorial Assistant*
LEON G. KESTELOO . . . . . *Photographer*
HARRY L. GILLAM . . . . . *Circulation*

NOVEMBER

Volume XXIV/Number 11

IN THIS ISSUE **PAGE**

Editorial: November Mood 3
Recreation on Private Forests Poses Problems 4
Recreational Use of Farm Land Grows 5
Watch It, Sportsmen 6
Return of the Turkey 7
Big Game Harvest 8
Wildlife Management Institute Finds Liberal Small Game Regulations Sound 9
Conservation Education and Youth 10
Pass the Plaster, Please! 11
Conservationgram 13
Little North Mountain Wildlife Management Area 14
Welcome to Little North Mountain! 15
There are Ducks . . . and Ducks 16
Wrong Side of the Road 18
When the Big Possums Walk 19
Trumpeter Swans Return to the Prairies 20
Calls Gain Popularity 21
Mrs. F-57 Gets Around 22
Bird of the Month: Myrtle Warbler 23
The Drumming Log 24
Youth Afield 25
On the Waterfront 26
Letters 27

COVER: Less well known in Virginia than many other ducks, the diminutive green-winged teal is rarely seen in inland portions of the state. During the fall migration, which reaches its peak in early November, these colorful little visitors frequent tidal ponds and creeks in brackish marshes of the Eastern Shore and Chesapeake Bay areas. Our artist: John W. Taylor, of Edgewater, Maryland.

SUBSCRIPTIONS: One year, $1.50; three years, $3.50. Give check or money order, made payable to the Treasurer of Virginia, to local game commission employee or send to Commission of Game and Inland Fisheries, P. O. Box 1642, Richmond 13, Virginia.

VIRGINIA WILDLIFE is published monthly at Richmond 13, Virginia, by the Commission of Game and Inland Fisheries, 7 North Second Street. All magazine subscriptions, change of address notices, and inquiries should be sent to Box 1642, Richmond. The editorial office gratefully receives for publication news items, articles, photographs, and sketches of good quality which deal with Virginia's soils, water, forests, and wildlife. The Commission assumes no responsibility for unsolicited manuscripts and illustrative material. Credit is given on material published. Permission to reprint text material is granted provided credit is given the Virginia Commission of Game and Inland Fisheries and VIRGINIA WILDLIFE. Clearances must be made with photographers or artists to reproduce illustrations.

Second-class postage paid at Richmond, Va.

FROM _____

_____

_____

VIRGINIA WILDLIFE

DONOR _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

1

NAME _____ Years _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

New

Renewal

(Circle One)

2

NAME _____ Years _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

New

Renewal

(Circle One)

Christmas Order Form

$1.25 Each 1 Year Sub.

$3.00 Each 3 Year Sub.

10 or more 1 Year Sub.—

$1.00 Each

Offer Expires December 31

Digitized by the Internet Archive in 2013

http://archive.org/details/virginiawildlife63unse_9

EDITORIAL

November Mood

NOVEMBER in Virginia is something to be seen, something to be felt, something to be lived, and something to be remembered. It is bright, cloudless skies and hazy horizons of Indian summer. It is nippy nights under a harvest moon. It is the breath of the north wind among dry stalks and seed pods. It is the smell of autumn leaves and of wood smoke. It is the rush of wings and the discordant symphony of wild voices over marsh and sound. It is the wild things of woods and hedgerow, grown fat and sleek in nature's time of plenty. It is a time of fulfillment.

To many, November is mounting excitement and expectancy, as the time approaches when dreams of glorious days afield with dog and gun will be mere dreams no more. They, perhaps just a little more than other folk, can count their blessings in November. And they have a few to count!

There is a place to hunt for every Virginia outdoorsman who wants to do so, and although it is often taken for granted here, this is a blessing that is far from universal in the world today. Nearly two million acres of managed public hunting land will be open to sportsmen this November, and after the opening day rush these vast areas would be able to stand a lot more hunting than they actually will get. Add to this the even greater areas of private, even posted, land on which many hunters can and will get permission to hunt, through fair, courteous and friendly dealings with the landowners. There will be ample opportunity to hunt for all who want it.

There is plenty of game to make the sport of hunting worthwhile. No one is guaranteed his limit every time out, and the bulging game bags of yesteryear have no place in the highly developed code of hunting ethics that places quality of outdoor recreation above quantity of game killed. But there are quail and rabbits in the coverts, squirrels in the oak-hickory woods, and grouse in the mountain thickets, and none is in danger of being shot out. Deer are as widely distributed and more numerous in the state than they were when Virginia was a British colony. The range of the wild turkey is being extended successfully in a restoration program similar to that which a quarter century ago began to return the whitetail deer to all of its former range. There will be game to hunt, as well as a place to hunt it.

We live in a land still richly endowed. In it we have achieved a society, with a deeply rooted frontier tradition and an orientation toward the outdoors, that assigns great value to individual freedom to use and benefit from the common heritage.

Now it is the time of the hunting moon. It is November. It is high time for another Thanksgiving!—J. F. Mc.

LETTERS

Caught In The Act

EACH winter I have made hanging wooden suet feeders for the birds but they have been carried away.

This year I bored cavities in a 1 x 4 and fastened it about five feet above the ground, in a horizontal position, to a nearby tree. "Something" ate all the suet in spite of a heavy screen covering, and left claw marks.

I decided to let it take its own picture by using some equipment I had accumulated during the years, namely:

1. An old magnesium flash bulb that fitted a light socket.
2. A mercury switch from a furnace control.
3. Parts of an electric doorbell that operated from a six-volt transformer.
4. An old Eastman Kodak received by my wife as a college graduation gift in 1914.

I placed the mercury switch on the feeder, hooked the solenoid to the shutter of the camera and inserted the flashbulb in the end of a fifty foot extension from the house. I hoped that, when the feeder was mounted by the robber, the mercury switch would complete the circuit, set off the flash and snap the shutter.

It worked! The next morning I found that the flash had been fired. When developed the film showed that our robber was a large raccoon.

Charles B. Hebbard
Bluemont, Virginia

Should We Kill Our Rivers?

THE rare and beautiful things that nature has given us should be preserved. If we lose a few of the commonplace things, that is not so bad; we can always do without a bit of something that is found all over the place. But I speak instead of the rare things, our very few fast water rivers. In reality they are fast only in places, and usually only a few places at that.

As for the flat or slow moving rivers we are amply supplied with them, especially in our coastal areas. And even many of our mountain rivers are slow moving for most of their length. The fast sections of our rivers are few and far between, and they are our

(Continued on page 27)

Recreation On Private Forests Poses Problems

By ERNEST SWIFT

Much privately owned industrial land has been opened to the public for hunting and other forms of recreation. As the industry has assumed new social and civic responsibilities in keeping up with the trend of the times, it has come face to face with some fundamental economic problems.

Commission photo by Kesteloo

IN a democracy, all things advance through compromise. Conservation is no exception, nor will conservation prosper by having each of us join a mutual admiration society or by stuffing our ears with cotton to drown out the opposition. To counteract this tendency to be self-righteous and to be apprised of the fact that conservation is composed of many facets of interest, we should listen to the views and problems of others with an open mind. The affairs of life are like a flowing stream, and new situations must be met with intelligent planning.

Recently W. N. Haynes of the Union Bag-Camp Paper Corporation spoke of industry's role in the growing field of recreation. This occurred at a Conservation Roundup in North Carolina for the southeastern United States. Many national figures were present, including members of the House Committee on Interior and Insular Affairs.

Haynes, in his opening statements, briefly reviewed present Federal policies and the forecasts which have been made on the phenomenal growth of recreation and its impact on the forest industry in general.

As a bit of background, he noted that Secretary of Agriculture Orville Freeman (1) has announced his intention of revitalizing rural America, taking into consideration the fact that American people can look forward to more time for recreation as well as more recreational opportunity; (2) has indicated that as much as 50 million acres of surplus cropland should be devoted to other purposes, and says that recreation could be one of these purposes as a means of supplementing the landowner's income; and (3) has encouraged the Forest Service to adopt a policy of charging user fees.

Haynes went on to state that Secretary of the Interior Stewart L. Udall (1) has indicated that the 28 million acres of National Park lands are not adequate and that he hopes to place additional key recreational lands in Federal ownership; (2) is encouraging the Bureau of Indian Affairs to try to open 50 million acres of reservation lands for recreation; and (3) states that "By the year 2000, it is estimated that this country will require 40 times the recreation facilities it has now."

Mr. Haynes went on to note that Professor Gregory of the University of Michigan's Forestry Department has stated: "By the year 1984, recreation will be the number one use of all state and Federal land, and I suspect that forest products industries will have to fit their activities to the recreation seekers, not the other way around, as now."

The following are the conclusions I gathered from Mr. Haynes' talk, possibly stated more bluntly than he expressed them:

The forest industry has some very fundamental survival decisions to make. Survival includes taking risks in a highly competitive free economy and at the same time remaining solvent, and the latter means making a profit. That word "profit" is a nasty word to some people, despite the fact that it pays taxes and wages so that people can afford to recreate.

To be economically sound, forest industries require extensive acreages, the primary purpose of which is timber production, and industrial forests require much more than just intelligent land management. There must be a guarantee of an equitable and stable tax base, because the harvest is not annual but must be figured in decades. High annual taxes can kill off the best managed industrial forest in existence.

With the rising tide of recreation, back country land

values are climbing. This has inspired some local tax assessors to look with a hopeful eye on taxing industrial forest holdings for their recreational potential as well as their timber crop. This in turn would increase the cost of the timber and its conversion, and too few budding conservation authorities of today realize that excessively high taxes prompted much of the cut-out get-out policies of a few decades ago—that and the fire risk.

If Professor Gregory is correct that the United States is becoming a Utopia for lotus-eaters—that the primary use of all public lands, Federal and state, will be for recreation —this will place an even higher productive load on private forest lands.

That is a pretty broad statement with far-reaching implications. Whether recreation becomes a dominant use on farms or forest lands because of a profit incentive, *it is still a nonproductive use* and can never feed off itself.

If the forest industry attempts a multiple-use policy of equal production and equal recreation, can it supply its mills and keep up with the market demand—which is public demand? Will recreation profits offset a reduction in raw materials? With this reduction, who will have jobs or money to recreate with?

Another problem is the utter disregard for private property rights on the part of recreationists, even though a minority is involved. Public agencies supplying recreation areas are in a constant battle against vandalism and have frequently documented the destruction, but in this instance the taxpayers foot the bill.

Fire is another constant hazard with people in the woods, especially during the dry seasons. And over and above the actual loss in timber, the presuppression costs of manpower and equipment will increase. Not only do the abovementioned factors increase management costs, but the liability laws of many states are at present wholly inadequate to meet the situation.

This is no smoke screen that industry uses to hide behind, as over 90 per cent of forest industry lands are open to the public for some form of recreation. Industry up to the present time has been reluctant to get into the user-fee business, but industry may be forced to climb on that band wagon if it wishes to survive the competition with public agencies and farmers.

All in all, forests represent an extremely versatile resource, both for the general economic and social good. They have a greater appeal than farm lands to most recreationists. Forests mean many things to many people.

Changes are the breath of life—although when too suddenly injected into the bloodstream of human affairs, they can cause severe shock. We humans wish to have time for cogitation. Ideas must be clarified before drastic changes are promulgated. Investigations will reveal that industry is attempting to assume new social and civic responsibilities with the trend of the times.

Mr. Haynes was in no way complaining. He was attempting to fit our free enterprise into the new social philosophies which have temporarily captured the public's fancy.

As for myself, it seems that when recreation is promoted to the point where it outweighs the economic base, when it gets so far afield that it is considered a *first* priority, then we are in for big trouble. When our enemies finally breach the outer gates they will find a decadent civilization that has already destroyed itself.

RECREATIONAL USE OF FARM LAND GROWS

A remarkable switch to recreation as a major source of farm income is in progress.

Nearly 10,000 farmer-members of locally managed soil and water conservation districts established income-producing recreation enterprises on their lands last year. A total of 945 district cooperators, controlling 237,691 acres, switched from livesock, dairy, crops and other farming activities to recreation as a *primary* source of income.

A Soil Conservation Service survey shows that another 9,075 intend to develop recreation-for-profit facilities shortly, and that 1,562 of the cooperators say they intend to convert 511,780 acres now in livestock and cropping patterns to recreation as their *major* income producing activity.

The 2,939 soil and water conservation districts include 97 per cent of all the nation's farms and ranches, and more than 90 per cent of all private agricultural land.

Recreational enterprises established and planned include vacation farms, picnic and sports centers, fishing waters, camping and nature areas, hunting grounds, and shooting preserves.

Promotional programs to convert suitable private lands to recreation enterprises have been in effect for only a few months. The Food and Agriculture Act, passed last summer by Congress, authorized loans to farmers for buying land and equipment and for developing and maintaining outdoor recreation facilities of many kinds. More and more farmers are expected to participate in the program designed to expand outdoor recreation opportunities.

Commission photo by Kesteloo

Income-producing recreation is becoming an important product of farm land.

The Farmers Home Administration can make loans to farm residents who are unable to provide needed funds or who cannot get credit elsewhere at reasonable rates and terms. Approximately 100 loans already have been approved. Complete information about the loans as well as other aspects of the outdoor recreation program can be obtained from county offices of the FHA and SCS servicing the area in which a farm operator expects to conduct his recreation retailing operation. Requests also can be sent directly to the FHA or SCS, U. S. Department of Agriculture, Washington 25, D. C. Both agencies have published materials that describe recreation and loan opportunities.

Watch It, SPORTSMEN

It's easy for you to overtax yourself physically on your hunting and fishing trips so play it safer by being moderate.

By HENRY H. GRAHAM
Twin Falls, Idaho

SOME time ago two men of my acquaintance were following a rather steep trail on a fishing trip to a high altitude lake. They had left their car several miles below. At times they had to crawl over rocks and logs. It was pretty rough going, and although both of them were used to outdoor activity they were puffing quite a bit.

One of the men was reluctant to rest at all. All he could think of apparently were the hungry trout he felt sure would be awaiting them at the end of the trail. They weren't heavily-laden, having only their rods, creels, tackle and food. But Harold knew they were foolish not to go slower and take time to get their breath at regular intervals.

Finally, he said, "I don't know about you, Jim, but I'm stopping for awhile. My heart is pounding pretty hard. The air's very thin way up here. I'm not going to kill myself over a mere fish no matter how big it is. It would be good for you to sit a spell, too."

Jim grudgingly seated himself on a log, looking quite red-faced and bushed, but he remained for only a little while. Soon he was off again, climbing steadily toward the lake, which lay like a shining gem on the distant mountain top. He was half an hour ahead of Harold in arriving at their destination and Harold was alarmed at the way he looked. He gasped for air and his face had a peculiar ashen appearance. He hadn't even wet a line, eager as he was to start fishing. He was plainly scared and so was his pal.

"You'd better lie down for awhile," Harold suggested, "but I'm not going to string up your rod for you. I don't want you to be tempted to use it before you're physically able."

Evidently Jim had a good heart for he soon began to feel better. But the old pump had been subjected to great strain. Harold reminded him of the sober fact that they weren't kids any longer and drew from him a promise to take it easier on the way back, even though the route would be mostly downhill.

They enjoyed fairly good luck fishing and concluded the trip without any further trouble. Undoubtedly, however, Jim's body had almost reached the breaking point and he learned his lesson well for in the future he voluntarily adopted a more leisurely gait on all excursions afield.

This exercise may be too strenuous for the sedentary worker who has not undergone some preliminary conditioning.
Commission photo by Kesteloo

This story focused my attention on the fact that many eager hunters and fishermen overdo every year. Annually quite a few men die of heart attacks while big game hunting. We see the accounts in the daily papers. Accustomed to a sedentary life during most of the year, they were in no condition to climb mountains without reservation, excitedly chase wounded animals over hill and dale, and, in general, test their endurance to the utmost. They set altogether too fast a pace for themselves. No one can sit at a desk eight hours a day or engage in other light work for a living, probably riding back and forth and getting no exercise worthy of the name, and then safely go to the other extreme. Adequate preparation for strenuous exercise is needed. It is also a sound idea for one to have a thorough physical examination by a doctor before faring forth on an outing that requires great stamina.

The sedentary worker who expects to rough it in the great outdoors should do some preliminary training. He should take long walks instead of riding everywhere. If necessary he should lose weight under a doctor's direction, and, in general, get himself in shape for the fun that lies ahead. It is never wise to get up from a desk when one is out of condition and tramp for miles over rugged terrain in pursuit of game. Such a trip should be preceded by a toughening and breaking-in period. Big game hunting which involves much walking up and down hill puts a strain on even a sound, rugged heart which is accustomed to exercise. Even young fellows in the prime of life should be reasonable in regard to exercise.

Big game hunters who lack pack animals often try to carry a deer to their car, perhaps several miles distant. Thrilled over the conquest, as they have every right to be, they go up and down hills, perhaps with only the briefest sort of rest periods. Only a tough man thoroughly used to such an ordeal has much chance of getting away with this kind of sheer torture. Many a man has broken under the strain. Even if he survives the ordeal he may injure his heart or other organs. Back troubles occur, too, when such a feat is attempted in many instances.

Hunting is a wonderful sport—one of the finest—but it does have its dangers and moderation on such trips is strongly recommended.

Fishing, also, can be very strenuous, especially if one wades a deep, rocky stream. I have seen men in poor physical shape through lack of proper conditioning wade a tough stream all day long, being utterly worn out when night came. Some of them were so exhausted they had to take it easy for two or three days afterward before feeling fit enough to fish again. How much better it would have been if they had fished only a little while the first day, gradually increasing the length of time as they grew inured to it! Not only would they have enjoyed the sport more, but it would have been safer for them. It isn't much fun to do anything if one is at the point of physical exhaustion.

It pays for the sportsman to exercise moderation and not overdo a good thing. What does a big buck or creel of fish amount to if one dies or shatters his health in the process of getting them? So be reasonable, fellows, and live longer. Don't try to do everything the first day of a trip or the first time out.

RETURN of the TURKEY

By JACK V. GWYNN
Game Research Biologist

FOR over 30 years the Commission of Game and Inland Fisheries has been actively engaged in wild turkey restoration and at long last the program seems destined for success.

A great many different ideas and techniques have been tried in the effort to return the wild turkey to suitable woodland areas of Virginia where the original stock had virtually disappeared a generation before the restoration was undertaken. Unable to obtain native wild turkeys for restocking, the Commission began raising game farm turkeys in 1930. These were a cross between wild and domestic strains that proved better suited to game farm life than to woodland survival. Game farm production was improved through experiments and innovation, including the development of techniques that allowed free ranging native wild gobblers to mate with game farm hens. Between 1953 and 1958 a propagation pen system was tried, in which wing-clipped birds were allowed to mate, nest and rear their young under simulated natural conditions in four to eight acre pens closely attended by game managers. The real break-through, however, came when a source of native live-trapped birds became available for restocking the vacant range.

Virginia's live trapping efforts date from 1955 when biologist Jim Engle began to trap wild turkeys on the Big Levels Wildlife Management Area. Initial years of trapping met with many frustrations and failures, but procedures and techniques were gradually developed and improved. The live-trapping program began in earnest when the Gathright Wildlife Management Area was purchased in 1958. This excellent wild turkey range plus accumulated trapping know-how put the trapping program into high gear and allowed a complete termination of game farm turkey production. With wild stock now obtainable in numbers, the game farm turkey was retired in 1959.

TABLE 1. WILD TURKEY TRAPPING SUCCESS, 1955-62

Year	Big Levels	Gathright
1955	10	
1956	11	
1957	6	
1958	5	purchased
1959	31	40
1960	11	44
1961	8	16
1962	7	43

During eight trapping seasons 17 of the live-trapped turkeys were lost through mortalities that occurred from injury or shock during trapping or transportation. At first live-trapped turkeys were transported only by truck. Now they are transported by airplane whenever possible, and in new type crates of West Virginia design when it is necessary to move them over the roads. The crates have smooth plywood sides with foam rubber lining at the top. Each turkey is carefully tied inside a cabbage bag when flown by plane. During the 1962 trapping season, 50 turkeys were trapped and released in southwest Virginia without injury or loss.

Thus far 211 live-trapped turkeys have been successfully released on various National Forest and State owned lands in southwest Virginia. The progeny of these relocated wild birds already are providing spring gobbler hunting in some areas where turkey hunting of any kind had long been a lost art.

(Continued on page 21)

Commission photo by Kesteloo

Transplanted native wild turkeys have succeeded in raising broods in many areas where the best game farm stock failed.

BIG GAME HARVEST

By J. V. GWYNN
Game Research Biologist

WITH another hunting season only a few days in the offing, a look at last year's Big Game statistics might shed some light on what we can expect. Boasting an all-time record deer harvest, a bear harvest that ranked third in the past 16 seasons and a wild turkey harvest that ranked fourth in the past 12 seasons, Virginia's 1962-63 hunting season deserves a prominent place in history. Wild turkeys could be hunted in the snow for the first time in many years, uniform deer hunting regulations prevailed west of the Blue Ridge, and all but two Virginia counties incorporated some type of "any deer" regulations to better utilize the annual surplus.

Studies of our western deer herds vividly emphasize the decreasing ability of many forests to supply adequate nutrition. Inadequate food conditions are pointed out by antler size, weight and fawn percentages in the fall kill. The quality and quantity of deer food supplied by a forest depends upon its age. The young forest produces the best food. As the forest matures the trees shade out and prevent new growth needed by deer. This change from good deer range to poor range occurs within 10-30 years depending upon soil, moisture, sunlight and other factors.

Vast acreages of our western hardwood forests were heavily logged between 1915-1930. Repeated uncontrolled fire slowed the regrowth of the forest following logging but effective fire control efforts gradually reduced this factor. Because so much of the western forest was cut within a short period, a vast acreage of the western deer range has now passed its prime and continues to decline.

The problem in western Virginia is that vast areas of forest have grown enough to become poor deer range but not enough to be cut commercially at a profit. The most economical means of turning poor deer range into good deer range is to commercially cut the trees that are shading the forest floor and preventing new growth. The job can be done in other ways but the expense involved greatly limits the amount of land that can be converted.

The solution in western Virginia is the conversion of these older even aged forests into smaller areas of mixed aged timber stands scattered throughout the forests. The smaller commercial cuts must be scattered throughout the forest each year so that a continuous supply of young forest growth is available at all times. Game managers and foresters recognize the difficulties brought about by past logging history but time and good timber management should provide the remedy.

What's in store for the 1963-64 hunting season? With virtually the same deer regulations in effect as last year, Virginia sportsmen should reap a harvest of 8 to 10 thousand deer west of the Blue Ridge and 24 to 26 thousand deer east of the Blue Ridge. A State total of 32 to 36 thousand deer is estimated for the 1963-64 harvest.

Wild turkey harvests have varied considerably depending upon the success of the hatching season. The decrease in the number of turkey hunting days both east and west of the Blue Ridge will reduce the 1963-64 harvest to between 1500 and 2000 even if a good hatch occurs.

Black bear harvests continue to fluctuate with the acorn and hickory mast crops. In the past 16 seasons only once has the harvest been over 300 two years in succession. The 1964 bear harvest is more likely to be between 175 and 275 animals during the 1963-64 season.

County or City	Deer 1960-61	Bear 1960-61	Turkey 1960-61	Deer 1961-62	Bear 1961-62	Turkey 1961-62	Deer 1962-63	Bear 1962-63	Turkey 1962-63
Accomack	28	....	....	47	....	....	86	....	....
Albemarle	203	6	56	191	10	51	781	6	57
Alleghany	607	6	68	601	10	82	453	22	69
Amelia	155	....	239	160	....	128	538	....	111
Amherst	111	7	42	107	10	37	246	21	35
Appomattox	139	....	101	170	....	69	181	....	56
Augusta	2,233	22	307	1,928	56	241	1,180	72	144
Bath	2,168	14	332	1,672	33	309	1,185	32	257
Bedford	....	11	30	....	6	31	30	11	23
Bland	72	1	....	84	2	....	308	9	....
Botetourt	541	16	105	593	7	117	470	20	94
Brunswick	98	....	75	122	....	84	324	....	57
Buckingham	551	....	276	537	1	178	2,387	....	226
Campbell	2	....	47	3	....	37	3	....	19
Caroline	2,802	....	133	1,971	....	110	1,757	....	132
Carroll	10	....	....	19	....	....	36	....	....
Charles City	269	....	....	326	....	....	1,021	....	....
Charlotte	12	....	74	19	....	51	36	....	24
Chesterfield	177	....	183	145	....	103	620	....	72
Clarke	101	....	....	151	....	....	88	....	....
Craig	971	5	....	974	8	100	497	5	121
Culpeper	235	....	10	136	....	18	134	....	18
Cumberland	210	....	194	193	....	117	723	....	56
Dickinson	24	....	....	21	....	....	24	....	....
Dinwiddie	205	....	174	226	....	129	636	....	83
Essex	220	....	14	191	....	7	110	....	7
Fairfax	75	....	21	41	....	16	50	....	16
Fauquier	294	....	29	314	....	47	322	....	59
Floyd	20	....	....	19	....	....	36	....	....
Fluvanna	178	....	54	239	....	20	825	....	33
Franklin	15	....	....	7	....	....	34	....	....
Frederick	952	....	52	651	....	37	402	....	19
Giles	602	5	....	550	1	....	472	4	....
Gloucester	252	....	....	232	....	....	203	....	....
Goochland	317	....	31	342	....	36	418	....	36
Grayson	891	....	....	739	1	....	378	....	....
Greene	37	3	....	106	3	....	72	6	....
Greensville	81	....	25	110	....	23	297	....	19
Halifax	284	....	99	200	....	53	201	....	54
Hanover	214	....	26	201	....	15	141	....	11
Henrico	138	....	13	57	....	7	160	....	8
Henry	....	....	....	1	....	....	6	....	....
Highland	658	5	210	668	6	192	510	11	175
Isle of Wight	269	....	....	281	....	1	417	....	....
James City	212	....	4	255	....	7	433	....	3
King George	375	....	12	417	....	15	402	....	14
King & Queen	243	....	28	245	....	33	175	....	30
King William	329	....	35	314	....	17	310	....	....
Lancaster	372	....	....	400	....	....	411	....	....
Lee	66	....	....	65	....	....	32	....	....
Loudoun	196	....	....	201	....	8	256	....	13
Louisa	529	....	57	421	....	54	511	....	47
Lunenburg	41	....	65	34	....	26	34	....	25
Madison	19	4	....	28	6	....	36	4	....
Mathews	122	....	....	105	....	....	131	....	....
Mecklenburg	26	....	28	17	....	26	45	....	21
Middlesex	77	....	....	97	....	....	97	....	....
Montgomery	....	4	....	....	2	....	....	2	....
Nansemond	104	10	....	182	5	....	511	2	....
Nelson	136	14	63	101	9	44	318	8	37
New Kent	364	....	62	408	....	49	1,517	....	16
Norfolk	532	11	....	545	1	....	1,248	1	....
Northumberland	233	....	....	309	....	....	286	....	....
Nottoway	105	....	67	118	....	56	1,210	....	34
Orange	124	....	51	119	....	38	166	....	43
Page	523	2	....	409	....	....	165	7	....
Patrick	123	....	....	112	....	....	257	....	....
Pittsylvania	6	....	24	9	....	19	24	....	9
Powhatan	197	....	138	163	....	76	671	....	60
Prince Edward	21	....	96	26	....	57	141	....	37
Prince George	527	....	84	639	....	59	1,256	....	45
Princess Anne	14	....	....	8	....	....	44	....	....
Prince William	248	....	77	282	....	63	266	....	53
Pulaski	42	1	....	54	....	....	105	1	....
Rappahannock	288	....	....	179	3	....	109	....	....
Richmond	381	....	....	398	....	....	389	....	....
Roanoke	17	1	....	19	....	....	8	1	....
Rockbridge	535	15	182	584	10	246	448	27	124
Rockingham	1,412	20	80	1,568	11	106	1,058	49	38
Russell	14	....	....	5	1	....	8	....	....
Scott	427	....	....	280	....	....	179	....	....
Shenandoah	2,536	....	65	1,779	2	60	719	1	24
Smyth	1,248	13	....	1,089	1	....	417	2	....
Southampton	1,051	....	23	1,127	....	18	1,312	....	15
Spotsylvania	432	....	59	431	....	80	495	....	84
Stafford	630	....	89	683	....	62	646	....	88
Surry	279	....	58	284	....	46	798	....	31
Sussex	798	....	109	728	....	88	645	....	79
Tazewell	62	5	....	39	....	....	165	4	....
Warren	536	....	....	488	1	....	275	....	....
Warwick-Newport News-Hampton	239	....	3	179	....	1	172	....	....
Washington	286	....	....	288	....	....	171	....	....
Westmoreland	273	....	....	229	....	....	223	....	....
Wise	324	....	....	176	....	....	67	....	....
Wythe	440	8	....	504	....	....	290	11	....
York	631	....	18	397	....	11	386	....	4
TOTALS	36,166	209	4,597	32,882	206	3,811	38,836	339	3,065

When there is an abundance of quail, hunters may bag a high per cent of the birds in the fall, but as game becomes more difficult to find hunters give up long before they become a threat to the basic population.

Commission photo by Kesteloo

Wildlife Management Institute Finds Liberal Small Game Regulations Sound

VIRGINIA'S experience in recent years with liberal small game seasons, extended in most eastern counties until as late as February 15, confirms the results of a number of scientific studies which show that lengthened seasons can provide more opportunity for outdoor recreation without threatening game populations.

The number of quail—not hunters or hunting days—determines how many of these sporty game birds will be bagged each autumn, according to the Wildlife Management Institute. When weather, cover and food supplies cooperate to give the birds a better than average nesting and rearing season, hunters can expect to bag more birds than usual in the fall. Fewer will be taken when nesting does not go well. But no matter whether the bird population is up or down, hunters take considerably less than could safely be harvested.

Humans have a natural tendency to limit their exertions on an input-output basis. To state the proposition another way, man labors when the rewards are equal to or greater than the value of the time, money and effort it takes to obtain them. It works that way with the nation's millions of hunters, because study after study has shown that hunting effort—especially for rabbits, quail, squirrels, grouse, and other small game—dwindles rapidly long before the game is reduced to anywhere near a level that would jeopardize the following year's breeding stock.

Small game hunters traditionally harvest too little game, not too much. Proof has been gathered time and time again in careful field studies of unconfined populations of quail, pheasants, rabbits, squirrels and other animals, where the effects of the extremes of complete protection and heavy cropping have been measured. Weather, food and cover—not shooting—are the determinants of game abundance.

In support of this view, the Wildlife Management Institute cites this conclusion from a 10-year study by the Arizona Game and Fish Department: "Probably the most important fact turned up was that the per cent of the quail population taken by hunters is directly proportional to the size of the quail population. When quail numbers are down, not only less quail are shot but a *smaller per cent* of the population is taken . . . . The significance of this is obvious . . . . We now know that as numbers drop and quail become more difficult to find, the bulk of the hunters simply give up. Those who do persist in hunting get little for their efforts except exercise and fresh air and give up long before they become a threat to the basic population."

Using sound biological information, progressive wildlife agencies have found that shooting seasons can be lengthened, thereby providing more opportunity for outdoor recreation without jeopardizing the basic breeding stock of game animals. This well-established fact has prompted a decision in many states to set the longest possible small game seasons in order to supply extra outdoor recreational opportunity for those hunters who wish to take advantage of it. Hunters benefit, and future game stocks are not jeopardized.

A long season provides extra outdoor recreation for those who wish to take advantage of it, without jeopardizing future game supplies.
Commission photo by Kesteloo

Commission photo by Kesteloo

Conservation Education and Youth

By HUGH FIELDS

TODAY'S boy or girl has many advantages that were denied us older generations during our youth. A case in point is conservation education. Few of us had the opportunity to learn about the conservation of natural resources during our formative years. We learned later on in life because of our interest in hunting and fishing, or because of a love of the outdoors in general. Often our interest in conservation and concern for the fate of our resources has not been supported by a solid foundation of conservation knowledge. We have been sincere in our efforts to protect our resources, but we have made many mistakes due to ignorance.

Most of us who are conservation conscious became that way by accident. Our interest certainly was not the outgrowth of an educational plan or system. More than likely each of us would trace our concern back to a bygone incident or to an "old-timer" we admired. Utimately we could trace it to the keen awareness and eager curiosity of youth. We were lucky.

Youthful curiosity and awareness are wonderful gifts. If you wish to witness them and your nerves can stand it, take a youngster hunting or fishing. It's a frustrating but rewarding experience. My nine-year-old and I went squirrel hunting last season. There's nothing so nerve-wracking as a typical boy stalking game. The constant din of boots in dry leaves, accompanied by the all-too-regular snaps of dead twigs, is unnerving. Couple these to an occasional crashing trip-up or a "Daddy! Come see what I found!" and you have a situation to try your soul. Mine was tried, so I finally stationed the boy where he would have a fair chance to shoot a squirrel. Then I eased out for an hour or two of quiet, peaceful hunting.

When I returned we compared experiences. My hunt was fruitless. I had seen nothing and shot less. His hunt was a thorough success. He hadn't seen a squirrel, but he enthusiastically told me about all the different kinds of woodpeckers in the area and he showed me a salamander in a branch.

The point is, my nine-year-old is enthusiastic, observant, and eager to learn; I am complacent, my vision has narrowed, and I'm getting set in my ways. He is fertile soil in which the seeds of conservation education can reach full growth; the same seeds would barely take root in me now.

It is trite but true that the youngsters of today are tomorrow's citizens and civic leaders. The destiny of conservation and the fate of our natural resources depends on how well we educate our boys and girls. The base of conservation education is instilling an appreciation of nature and imparting an insight into the part natural resources play in our physical, spiritual and moral well-being. This is a difficult job with adults, but it is a rewarding endeavor with youth. Most adults are conservation conscious only in their narrow areas of interest. The quail hunter is mainly concerned about conservation as it affects Bob-white; the trout fisherman cares mainly for the protection of his favorite stream. Youngsters are different—they care about everything.

Conservation is a broad, complicated topic. It encompasses a myriad of sciences and activities that are crucial to our welfare: biology, the physical sciences, sociology, economics, and political science. Conservation is concerned with the agricultural and urban problems brought about by our growing population and the increasing demands placed on natural resources. It involves the impact of production and consumption on resource use as it affects us not only at present but also in the distant future.

There are many ways that today's youth may be educated in conservation. School sytems are recognizing conservation education as a fundamental part of general education. Many teachers are contributing to conservation education by teaching it as such, or incorporating conservation into the teaching of other subjects.

There is a definite contrast between those youngsters who have experienced conservation education and those who have not. The educated boy or girl has a definite edge over the non-educated one in understanding and appreciating the world around him. He or she is better equipped to evaluate the problems and activities of living because of an improved and broadened viewpoint brought about by conservation knowledge.

The job of teaching youngsters to appreciate and intelligently use natural resources is far from complete. A large part of today's youth is not being reached and new generations are constantly emerging. This means that the citizen conservationist and the professional have the responsibility to assure conservation education for all youth. We owe young people the opportunity of a *full* education which they can use not only in finding a livelihood but also in wisely using and enjoying the earth's natural wealth.

Commission photo by Kesteloo

From *Wildlife of North Carolina*, courtesy North Carolina Wildlife Resources Commission.

Pass the Plaster, Please!

By RUTH K. STROH
Cockeysville, Maryland

IT always was a fact that children enjoyed "making mud pies." Today's school teacher takes advantage of this fact by letting them use mud's more important and artful counterpart, plaster.

Plaster has been used successfully to mold animal tracks, leaves, and other items for use in studies of natural science, as well as handprints for gifts to parents. Now it has become the main item in an important original and new art project known as the *diorama*. The diorama's main function,

Dioramas depict the outdoors, and wildlife in natural settings. Pupils admire the "realness" of the tiny scenes.

up to now, has been to depict outdoor scenes and wildlife in natural settings, and this inevitably involves students in a greater awareness and appreciation of the elements that make up the natural environment and the relationships which exist among them.

In planning the diorama the child decides, alone or with a group, just how large it will be. Individual ones can be "cast" in a shoe box lid; the larger ones worked out on a big piece of celotex. Some are done on plain newspaper. Other items supplement the use of the plaster, but are secondary to it. Often, class or school art funds allow the teacher and pupils to go to the hardware or art supply store themselves to purchase the type of plaster they want. Some want the fastest hardening; others, the type that takes three hours. Some add vinegar or glue to slow the fast-hardening kind. They experiment with all kinds of plaster, read about its use in building projects, the plasterer's work, and industry as a whole; and generally gain a fine respect for this versatile and necessary material. And all the while they gain important insights into the world of nature as they make or use wildlife images and fit them into their proper places in make-believe terrain.

The children set up their dioramas the following way. The mold, a box or box lid, or piece of celotex the required size with outline on it, may be waxed or lined with waxed paper. This will enable the molded plaster, when hardened, to come out easily. As plaster is mixed fractionally with water, arithmetic learnings are also involved, as well as when it is weighed or bought. Then, it is poured carefully. Artificial foliage, animals (clay ones or toy ones already molded), bits of natural dried grasses, are quickly stuck into the plaster. Fences and all sorts of items are added to set up a true-to-life scene, in miniature. These appeal to the pupils, as they find in plaster a new aspect of art. Plaster "takes" all kinds of paints very well; enamels, food colors, or water colors can be used to put finishing touches on the diorama.

Elaborate dioramas are done by groups, as a model house built and set down into the plaster, with hills built up as needed by pushing fresh plaster over reinforced wire cloth, bits of tissue paper, newspaper, or ordinary fence wire cut small. Scenes may include wild or tame animals, trees, and all that makes them complete and real. Smaller, individual dioramas may show wild birds on a wild rose arbor or rail fence; a dog pointing a bird in a hunting scene; imitation terrain and trout streams, the plaster being hand- or spoon- or trowel-pushed where streams or depressions are wanted. Wildlife can be shown in natural sur-

A simple diorama consists of a rail fence, a wild bird and a pointing dog.

roundings representing all seasons of the year. Pupils (and often parents) admire the "realness" of the tiny scenes.

"Pass more plaster, please!" is the comment often heard nowadays as "plaster goes to school." Some schools already have it listed on their yearly supply order sheets; others are more and more considering its artful possibilities. And if the children are slow, and it hardens, they drill holes and glue their items into the plaster and everything works out fine anyway. As one youngster put it: "I like plaster because it is 'plushy,' pushy, pliable, and soft and smooth as cake icing!" Another said: "My daddy's a plasterer. Wait'll I show him what *I* can do with it!" Yes, plaster has a place in the modern curriculum. It can be used for a uniquely memorable and lasting wildlife art project that furnishes new learning experiences and appreciations.

THE NATIONAL WILDLIFE FEDERATION

The Virginia Wildlife Federation

and Other State Affiliates

ANNOUNCE 1964-65 PROGRAM OF

SCHOLARSHIPS and FELLOWSHIPS IN CONSERVATION

OPEN TO: PERSONS WHO ARE CITIZENS OR NATIONALS OF THE UNITED STATES OR WHO WILL BE BY MARCH 1964

GRADUATE STUDENTS.....UP TO $1,000.00

UNDERGRADUATES WHO HAVE COMPLETED AT LEAST ONE YEAR OF COLLEGE.....UP TO $500.00

- RESOURCE MANAGEMENT
- CONSERVATION EDUCATION
- JOURNALISM
- RADIO AND TELEVISION
- LANDOWNER-SPORTSMEN RELATIONS
- RELATED PROGRAMS

ACT NOW

APPLICATIONS MUST BE POSTMARKED ON OR BEFORE DECEMBER 1, 1963
ANNOUNCEMENT OF AWARDS: MARCH 1964

FOR APPLICATION BLANKS WRITE TO:

EXECUTIVE DIRECTOR
NATIONAL WILDLIFE FEDERATION
1412 SIXTEENTH STREET, N.W.
WASHINGTON, D. C. 20036

VIRGINIA WILDLIFE ☆ ☆ ☆ ☆

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

HUNT YOUR OWN 6 ACRES THIS FALL. Sportsmen who hunt on the state's many Wildlife Management Areas this fall should treat them as if they were their own because in reality they are, the Game Commission reminds. A total of 1,868,346 acres is managed currently by the Commission of Game and Inland Fisheries, in cooperation with state, federal and private agencies, to provide hunting for Virginia sportsmen. This totals over six acres for each licensed hunter in the state. Big game, small game, upland game and waterfowl hunting opportunities are included in the network of management areas which stretches from the Atlantic to the southwestern mountains.

There is no daily charge for hunting on these management areas, but season stamps or permits are required on some. A $1 National Forest Stamp is required to hunt on National Forests, a $1 State Forest Stamp is required of hunters on the State Forest lands, and a $2 season permit is a pre-requisite to hunting on 5,645 acres of Chesapeake Corporation lands opened to the public under agreement with the Game Commission.

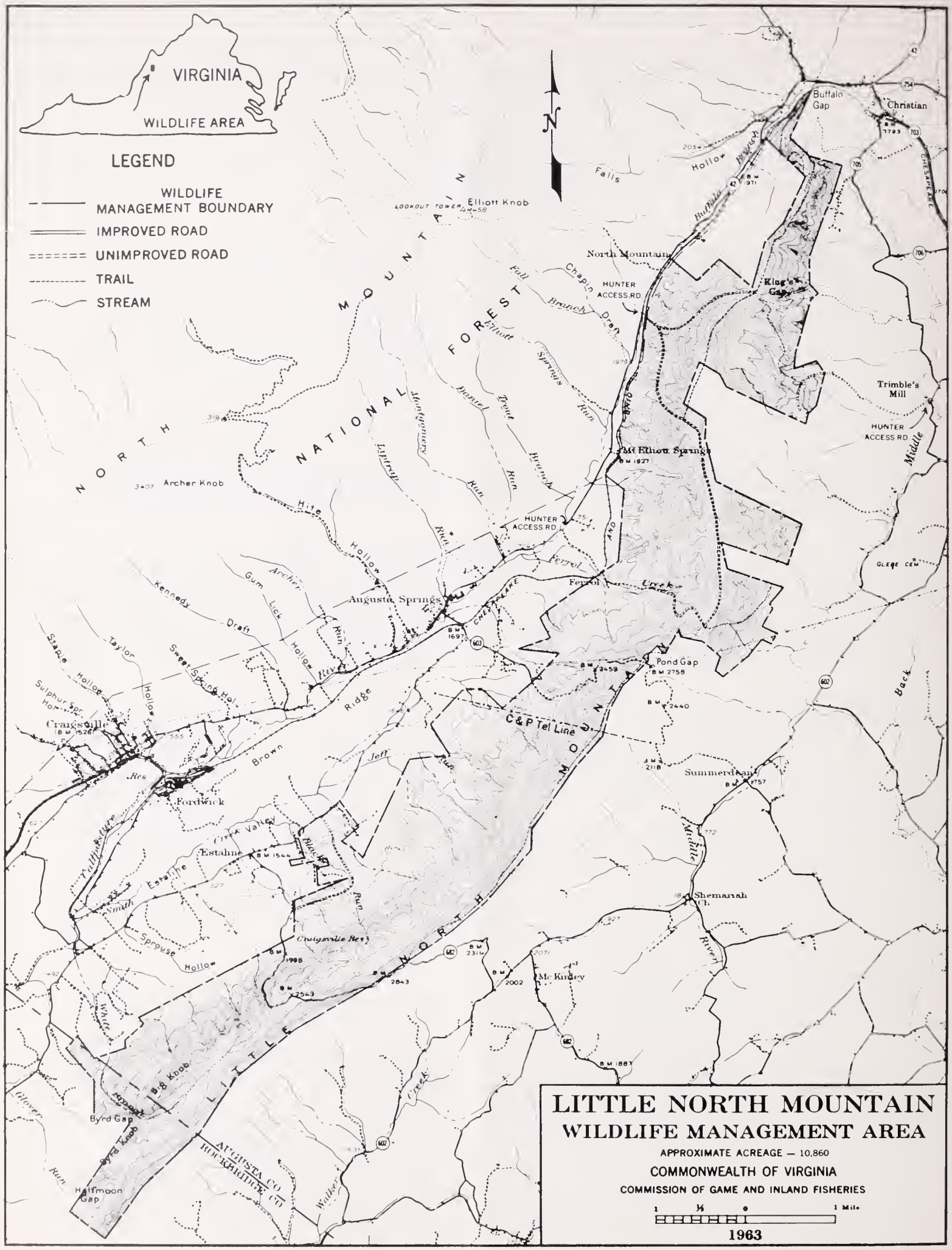
ACCOMACK AND NORTHAMPTON INCLUDED IN LATE SMALL GAME SEASON. The quail and grouse season will extend until February 15 in Accomack and Northampton Counties instead of closing January 31 as erroneously stated in the Game Commission's summary of Virginia Game Laws. Rabbit season was cut off on January 15 in these counties at the request of the respective County Boards of Supervisors to correspond with the closing of the rabbit season in adjoining Maryland counties.

LET'S MAKE IT A SAFE SEASON. The 1962-63 hunting season set quite a few records not the least of which was a 50% reduction in the hunting fatalities in Virginia. The Game Commission reminds hunters, however, that as the number of people enjoying outdoor recreation swells, each individual will have to exercise more caution to avoid a proportionate increase in hunting season tragedies both in the field and on the highways.

Careful planning is good insurance against mishaps which often occur when we get in a hurry. Allow adequate time for driving, setting up camp, travel from camp to the hunting territory and return. Remember that your fellow outdoorsmen will be out en masse on the highways, at the camp grounds, and in the woods. Take it easy and learn to live with it. Irritation with your fellow man adds nothing to the hunting season except perhaps a statistic in the highway or hunting accident book. Relaxation is the first step to full enjoyment of the outdoors.

MOST WILDLIFE SPECIES PROTECTED. Only five species of wild birds, other than those classified by law as game birds, may be legally hunted or killed in Virginia. The five, on which there is no bag limit or closed season, are the vulture, blue jay, crow, starling and English sparrow. All other birds not classed as game birds are fully protected by state and federal laws. Hunters shooting any of these are subject to the same penalties as for shooting game birds out of season, according to a reminder issued by the Commission of Game and Inland Fisheries.

Included in the protected group are hawks, owls, blackbirds, woodpeckers, meadowlarks, seagulls, mockingbirds, and others which sometimes become the targets of unscrupulous or thoughtless nimrods. Most animals not classed as game or furbearers are not afforded this same protection. Notable among the unprotected mammals are bobcats, skunks, weasels, and woodchucks. Red and gray foxes are protected in many Virginia counties during part of the year. Check your game laws to be sure.


VIRGINIA
WILDLIFE AREA
LEGEND
WILDLIFE MANAGEMENT BOUNDARY
IMPROVED ROAD
UNIMPROVED ROAD
TRAIL
STREAM
N
NORTH MOUNTAIN NATIONAL FOREST
LITTLE NORTH MOUNTAIN
Buffalo Gap
Christian
Falls Hollow
Elliott Knob
North Mountain
HUNTER ACCESS RD.
King's Gap
Trimble's Mill
Mt Elliott Springs
Archer Knob
Hite Hollow
Ferrol
Augusta Springs
Kennedy Draft
Gum Lick Hollow
Taylor Hollow
Sweet Spring Hol.
Sulphur Spr. Hol.
Craigsville
Fordwick
Brown Ridge
Pond Gap
C&P Tel Line
Summerdean
Estaline
Craigsville Res.
Shemariah Ch.
McKinley
Byrd Gap
Halfmoon Gap
AUGUSTA CO
ROCKBRIDGE CO
LITTLE NORTH MOUNTAIN
WILDLIFE MANAGEMENT AREA
APPROXIMATE ACREAGE — 10,860
COMMONWEALTH OF VIRGINIA
COMMISSION OF GAME AND INLAND FISHERIES
1 ½ 0 1 Mile
1963

Welcome To Little North Mountain!

By J. W. ENGLE, JR.
Game Commission Forester

HUNTERS should find easy access to good public hunting for deer, turkeys and grouse on Little North Mountain near the Augusta-Rockbridge County line this fall when they visit the wildlife management area which the Commission of Game and Inland Fisheries has been developing there for the past five years.

Little North Mountain Wildlife Management Area of 10,860 acres is all in Augusta County with the exception of 460 acres that lie in Rockbridge County. The area borders on the western edge of the Shenandoah Valley, and is readily accessible to a large number of Virginia sportsmen. In Buffalo Gap the border of the management area is only seven miles from Staunton.

The area has been in the process of acquisition since October, 1958. It is composed of nine different tracts of land, all adjoining. The terrain is not as rugged as on some of the other Commission owned wildlife management areas. The elevations range from 1700 feet in the vicinity of Trimble's Mill to 3000 feet near Half Moon Gap. Most of the terrain is of a rolling nature and in the vicinity of elevations of 2200 to 2400 feet.

In the timber management plan for this area, only 25 percent of the area was classified as non-commercial (meaning the vegetation was either too sparse or the terrain too steep for commercial logging operations). It is planned to harvest timber on approximately 400 scattered acres each year in the interests of wildlife and forestry. Timber sales will be managed to produce a variety of vegetation. Game species to benefit primarily from this activity will be deer and grouse.

The Little North Mountain Wildlife Management Area supports a fair sized herd of good quality deer. In a day's hunting you should expect to see two to ten. The antlers judged best in Virginia in 1959 were worn by a buck taken in this area, and some buck fawns taken last year weighed 90 pounds hog dressed. The number of wild turkeys on the area varies from year to year, but the number of flocks ranges from eight to ten. Turkey hunting probably is as good as in any area in Augusta County. Several black bear rear their young here each year, but by hunting season apparently move off to the rougher terrain around Elliotts Knob on Big North Mountain.

The Game Commission boundary line is identified by yellow paint on trees. This is a point to remember in looking for the boundaries of all Commission-owned public hunting areas. The northern part of this management area has all of its boundary marked. Considerable work yet remains on the southern boundary.

Public access is mostly through access points. These are marked on the ground by wooden signs with routed letters, reading "Hunter Access Road." Most of the land lies on the west side of Little North Mountain, and most of the access is from Routes 42 and 601, between Buffalo Gap and the Rockbridge County line. These access roads may be closed by pole gates during some seasons. Usnally they are open in their entirety during hunting seasons, depending on weather, road bed conditions, and available money for road restoration. In addition there are numerous foot trails and old logging roads for sportsmen to walk in hunting the territory.

Approximately three miles southwest of Buffalo Gap, where the management unit adjoins Route 42, is "Shillings Hunter Access Road." The road goes back to the foot of the mountain, where a northern fork leads to Kings Gap and the southern fork (negotiable only by four-wheel drive vehicle) to the top of the mountain.

Two miles farther along Route 42, in a southwesterly direction, is the "Jackson Hunter Access Road." The road goes through two farm gates and onto the management area at Ferrol, then leads to the top of the mountain where it connects with the Shillings Road. It also intersects Little North Mountain foot trail, which is in good walking condition, and leads to Buffalo Gap via Kings Gap.

Turning off Route 42 at Augusta Springs, onto Routes 811 and then 601, the sportsman will see the old abandoned (but still usable for trucks and jeeps) Pond Gap-Summerdean Road that leads into the management area.

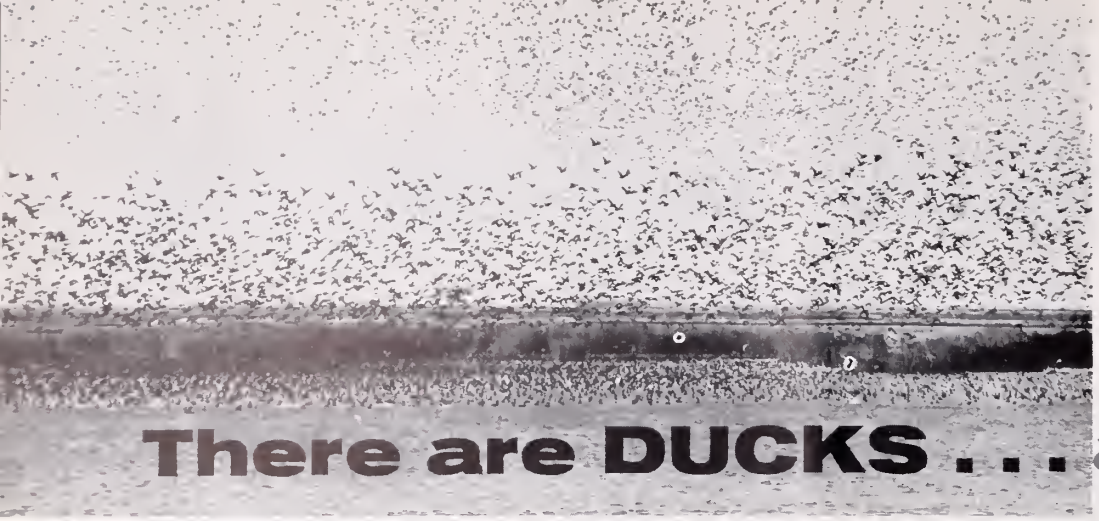
Three miles beyond this point the management area adjoins Route 601, near the historic Estaline Furnace. Access here is by easy walking through low rolling foothills.

Not quite a mile farther is Route 682 (gravel road) that runs through the management area. Many old logging roads lead to the north and south of this road. Route 683 leads across the mountain and back to the Shenandoah Valley near McKinley.

On the east side of Little North Mountain there is only one access point. This is just off Route 707, at Trimble's Mill, and via the Boy Scout lake at Camp Shenandoah. Sportsmen are requested to respect the rights of private landowners through which this right of way leads them as they follow the yellow and black signs until the road terminates in a dead end on Commission owned land.

Two small areas have been cleared, with the intention of their being used as unimproved camp grounds for hunters. The first is within sight of Route 42 at the Shilling Access Road. No drinking water is available, but a small mountain stream is nearby. The second such clearing is along Ferrol Creek (in via the Jackson Access Road), where there is a nice mountain spring.

No special licenses or permits are required to use Little North Mountain Management Area. The regular licenses are all that are needed. Uncased firearms and dogs are not permitted on the area except during the general open hunting season.



There are DUCKS . . . and DUCKS

By HARRY L. GILLAM
Information Officer

GONE are the days when the hunter can divide the avian world into ducks, partridges, rail birds, turkeys, doves and dickey birds. Wildlife specialists have long realized that each species has its own particular requirements and can fluctuate in abundance independently of other animals which may share its same general territory. Although turkeys and quail may inhabit the same patch of woods, a scarcity of one does not necessarily mean a scarcity of the other. This type of thinking is now being applied to waterfowl, a group long lumped together for purposes of regulation because hunters were reluctant to distinguish between them.

It appears that drought conditions which had brought the nation's duck population to a near record low point have loosened their grip and the ducks are on the road to recovery. Canvasbacks and redheads, two diving species which depend heavily on adequate water for supporting their floating nests and rearing their broods, were the hardest hit by the drought and were the first to be protected by restrictive measures. They remain on the protected list this year even though bag limits were liberalized on other species.

This year's 50-day duck season set to begin November 16 and extend through January 4 is the same length as last year's season, but is shifted four days later. The daily bag of 3 ducks represents an increase of 1 over last year's legal bag. A restriction allowing no more than 2 mallards or blacks combined in the daily bag gives added protection to these species which are below desirable levels. Mallards are down because of the effects of drought and the decline in blacks still has the experts baffled. Pesticide residues are being checked as a possible deterrent to reproduction.

On the brighter side of the species management picture, a good supply of scaup which are not subjected to heavy hunting pressure prompted the Fish and Wildlife Service to again allow two of this species in addition to the regular limit of three ducks. This type of special regulation might very well be expanded to other species when hunters overcome the hurdle of proper identification.

The most critical identification problem is distinguishing between the ringneck which may be included only in the regular daily bag of three, and the "bonus" scaup. Hunters will have to rely mainly on in-the-hand identification of these two species as even the experts have difficulty distinguishing between them on the wing.

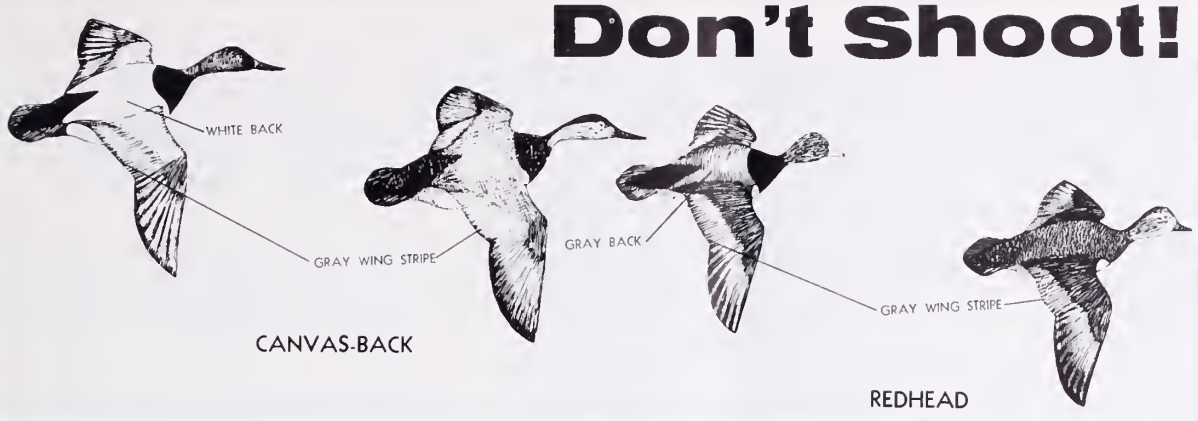
The daily bag limit may not include more than two wood ducks and one hooded merganser. These two species have always been somewhat limited in abundance and hunters could decimate large concentrations if they were allowed to fill their entire bag with these species.

In addition to the regular limits already mentioned, hunters may shoot 5 American or red-breasted mergansers daily and 8 coots. When transporting birds on the highway or storing them at home, a hunter may have in his possession exactly twice the daily bag limit of all ducks except wood ducks, provided not more than a daily limit was taken by that hunter on any one day. Two wood ducks are the maximum that may be in possession at any given time.

Duck shooting will begin at noon on November 16, but sunrise to sunset shooting hours will apply during the rest of the season.

You many shoot 5 of these combined daily and have 10 in possession in addition to limits on other ducks.

Don't Shoot!



Canvasbacks and redheads are completely protected and may not be killed at any time!

1963-64 VIRGINIA MIGRATORY WATERFOWL SEASONS AND LIMITS

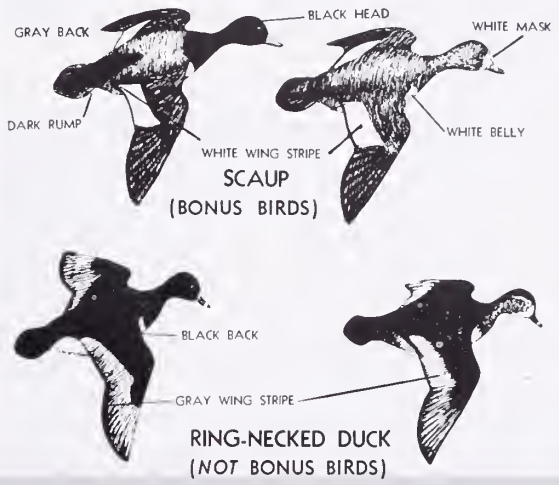
Species	Season Dates	Daily Bag Limit	Possession Limit
DUCKS*	Nov. 16-Jan. 4	3 plus 2 scaup†	6 plus 4 scaup‡
GEESE	Nov. 7-Jan. 15	2 Canada geese	4 Canada geese
COOT	Nov. 16-Jan. 4	8	16
BRANT	Nov. 7-Jan. 15	6	6
AMERICAN or REDBREASTED MERGANSERS	Nov. 16-Jan. 4	5 combined	10 combined

Shooting Hours: Sunrise until Sunset
(Ducks only, noon until sunset on Opening Day)

*Except canvasbacks and redheads on which there is no open season
†Not to include more than 2 wood ducks or 1 hooded merganser or 2 mallard and black ducks combined
‡Not to include more than 2 wood ducks, 2 hooded mergansers or 4 mallard and black ducks combined

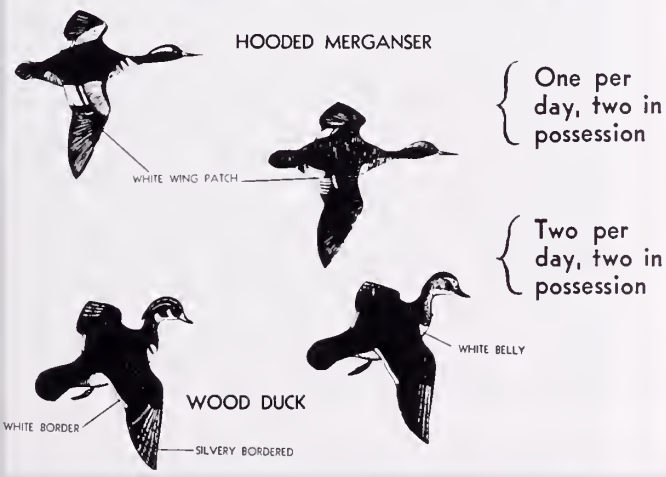
Careful!

Learn to Identify Before You Shoot

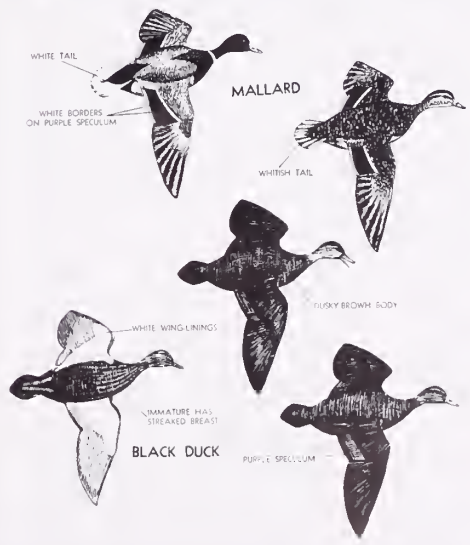


Know your bonus birds! In-the-hand identification is the only safe way to separate these two.

Regular Bag Limits May Include . . .



Restricted!



You may shoot only two of these combined daily and have no more than 4 in possession.

Coots

You may shoot 8 coots daily and have 16 in possession in addition to the bag limits on other ducks during the season.

WRONG SIDE OF THE ROAD

By MALCOLM A. BOOKER
Game Warden, Buckingham

NOW that the powder is being dried for the next hunting season, let's review a few of the interesting happenings of past seasons.

I can remember when deer hunting was a gentleman's sport of the highest type, but it changes a little each year here in central Virginia, as it probably does in other places.

Years ago deer hunters would come from afar, bringing their horses to hunt on, and servants to help look after the horses and wait on the sportsmen. They used to come to such popular hunting locations as Humanity Hall, Gravel Hill, Goodloe and Blue Ridge Hunting Clubs, and the local people looked forward to having them hunt and enjoyed it.

Now more hunters come, from both near and far, in automobiles and pickups, to hunt the roads and posted lands and sometimes even threaten to run the "ole farmer" off his own land!

Now I believe that we should have more hunting land open to the public, but it seems the hunters could do pretty well with the small tracts we have, if the game wardens would just let them alone. We have more deer *reportedly* killed on one tract of open land of less than 200 acres than are killed in some counties! And nine out of ten hunters that get a summons to court for hunting posted land tell me in some way that they were *supposed* to be hunting on one of these small open tracts and the dogs did them wrong and went over on the posted land. If only dogs could read!

This is where road hunting comes into the picture. The driver will put his dogs down on land on which he may have permission to hunt, but in ten minutes the dogs are on another tract that they cannot legally hunt on, and are off that in another ten minutes and "gone to the river."

The hunters on the drive will now begin the sport they call "catching the dogs." Each hunter in his automobile or pickup will start down the road to head off the hounds, or the deer, on another road. If they miss getting the deer, and do not get caught on posted land, they take out for still another road to "catch the dogs." It seems they seldom catch the dogs, but most of the time do get the deer! And, of course, "officially" it was killed back on the little open tract where the hunt started.

This kind of hunting can be practiced by local residents as well as by some of the hunters who have driven in from points way beyond the ridge. The local resident knows the back roads better, but he runs a greater risk of meeting face to face an irate landowner who will recognize him. He has to be a little more cautious.

Some of these hunts cover twenty miles of roads and fifteen farms. Sometimes a game warden, attracted by the commotion and spurred on by the complaints of outraged owners of the land and users of the roads where the hunt is in progress, manages to get in on the kill and the hunters are caught with the goods on posted land. I often ask some of these road hunters that are caught on posted land if they own any of the dogs, and more often than not they say no, but that they were trying to catch them anyway. After one of these dog catchers was summoned to court for trying to catch dogs on posted land, the driver came to me and said that he had lost his dogs on that particular day, but that no one was going to steal them because no one could get their hands on them but him!

I have often wondered whether some of these road hunters would make good county dog catchers. They have certainly had some experience chasing dogs, but then, of course, they seldom catch them.

I would love to be able to answer all the calls and complaints that I get from the landowners for one season, and to record all the unbelievable excuses and explanations they get from poachers as to how they happen to be on the posted property. I do not know how much deer hunting we will leave to our grandchildren, but I would have some good stories to tell them about the old days of the 1960's.

Road hunters and dog catchers are a special kind of sportsmen. They will park in a road, public or private, during deer season, leaving a car door swinging open, something they would never do the rest of the year. I had to back up and turn around and go another way on three different occasions last deer season, when I found roads blocked and the hunters or owners of the cars out of sight in the woods. In one instance last year a mother was advised that if she went down a certain road, where she might have turned a deer that the dogs were driving, she did so at her own risk!

I am not picking on the deer hunter. He has as much right to his legal hunt as any other hunter has to his. But it is an odd fact that ninety per cent of my court cases originate from deer hunting.

My ancestors believed that they went to a happy hunting ground when they died, but they had to die to do it. Now, maybe, all you have to do is to know how to road hunt and catch dogs and you are already there, but I hardly think so! At least this happy hunting ground does have a few regulations, such as the requirement for deer and turkey tags. You can buy them legally from a proper agent, not borrow them. When I check a deer hunter for his license and he has two deer tags on this license and a loose one that is already bloody, I get curious. I had that happen three times last season.

I know of hunters who kill a deer on the first day of the season, hunt every day that they can thereafter, and only during the last few days of the season use their last checking tag. I wonder why they never seem to kill their second deer during the middle of the season.

It is a vicious circle we go through. We learn a little more each year about how to cope with the situation, and the road hunter, the dog catcher and the game hog learn a little more each year about how to violate the law and get by with it.

We have a lot of road hunters now with two way radios in their cars, so the car up front can call the car way back behind and tell him to come through right quick and

(Continued on page 21)

WHEN THE BIG POSSUMS WALK

Commission photo by Kesteloo

By I. C. BROWN
South Boston, Virginia

THE persimmons lay like golden nuggets under the tree and Ole Jack, the cinnamon colored hound, was getting itching feet. The cow horn was taken from its resting place on the peg behind the kitchen door, and the possum box by the back steps was gone over inch by inch. It was possum huntin' time.

My introduction to opossum hunting came on a visit to my cousins' home. When I flatly told them I had never been, they consented to take me. I was bundled to my eyeballs in coats five sizes too large. "It gets mighty nippy around midnight." Cousin Stan explained. "You hunt that late?" I wailed. "Why sure, that's when the big possums walk," and he winked at Cousin Bill.

The moon cast weird shadows and twigs and leaves snapped like firecrackers under our feet. Ole Jack and the other hounds were up ahead. "As quiet as a burglar in the smokehouse," Cousin Stan moaned. He gave a loud blast on the cow horn that hung around his neck. Ole Jack answered with a yelp, and his partners joined in. Things began to get lively; they were on a possum track.

We hurried through the woods keeping only in sound of the barking dogs. Then Ole Jack's barking took on a different tone. "Ah, he's got him treed," the cousins beamed. When we caught up with the dogs they were guarding a stunted oak tree. Cousin Stan held the lantern up, and there snuggled on a limb, his eyes shining like small headlights, was the possum. Cousin Bill climbed the tree and when he was close enough, he reached over and shook the possum loose. Ole Jack grabbed him when he fell. Cousin Stan put the squirming possum in a guano bag and tied it tight.

I was getting a little tired about now and was ready to call it quits, but the dogs were just getting fired up. So off we went, the dogs, followed by the cousins, and me trailing.

The thick underbrush made it hard for me to keep up, and in the darkness I stumbled over a root and fell head first into a gulley. The cousins didn't hear my cries over the barking dogs, or they couldn't be bothered with anything so trivial. After I made sure nothing was broken, I picked myself up and brushed off a few leaves and sticks that were clinging, and hurried after the cousins. They were bagging another possum.

Ole Jack and his partners were prancing like a herd of bucking horses, and the cousins were just as happy. When they looked at me, the atmosphere changed. Even Ole Jack stopped prancing. Cousin Stan looked at Cousin Bill. "Yep, it's time to go home," they agreed.

The walk home was mostly in silence. I once heard Cousin Stan mumbling, "and just when they were running good." Ole Jack looked up at his master and wagged his tail. *He didn't have to be so agreeable*, I thought.

When we got home, the cousins put the possums in the box by the back steps. "Kinda skinny now but they'll fatten up after a few days in the box and make you some mighty fine eating," Cousin Stan said as he looked at me.

Now I've never been considered finicky about what I eat, but the thought of eating those possums, well—. I knew right at that moment my visit would be cut short. In fact, I would be leaving first thing in the morning.

TRUMPETER SWANS RETURN TO THE PRAIRIES

USDI Fish and Wildlife Service photos

FOR the first time in 80 years, the rare trumpeter swan—the world's largest waterfowl—has successfully nested east of the American Rockies.

Two pairs of wild trumpeters, introduced three years ago from Red Rock Lakes National Wildlife Refuge in western Montana, set up housekeeping on muskrat houses in a remote part of Lacreek National Wildlife Refuge in South Dakota.

The nesting of trumpeter swans at the Lacreek Refuge culminates years of planning to establish a trumpeter swan flock in the permanent water areas of the prairies, hereditary breeding grounds of these great white birds.

Many years ago, wildlife biologists of the Bureau of Sport Fisheries and Wildlife, Fish and Wildlife Service, began the task of establishing nesting trumpeter swan flocks in suitable wildlife refuge areas by stocking the refuges with cygnets from the Red Rock Lakes Refuge, Montana, the last major breeding grounds of the trumpeter swan population south of Canada. Thus, by not "keeping all their eggs in one basket," they hope to aid the repopulation of the trumpeter swan to traditional nesting areas from which they were exterminated when the country became settled.

The trumpeter's great size—an adult stands 4 feet high, weighs 20 to 30 pounds, and has a wingspread of 7 to 8 feet—its all-black bill, and sonorous voice distinguish it from the whistling swan. Adult trumpeters are snow white; the young trumpeters are grayish. They have been protected by Federal law since 1918. For many years, restrictions on hunting snow geese have been in effect in areas frequented by the trumpeters because of the danger of hunters confusing the two white birds.

The trumpeter swan was once an abundant and widespread species in North America, occurring regularly as far north as the Arctic Ocean and as far south as Missouri, and eastward to Indiana and Wisconsin. In early times, large numbers of trumpeters wintered in the Chesapeake Bay and Currituck Sound areas. But serious inroads were made by fur traders who trafficked in swan skins over wide areas for more than a century. The skins were plucked and feathers used in bedding. Colonists also killed the swans for meat and feathers, gradually exterminating flocks farther and farther westward until the last surviving numbers finally were to be found only in the most inaccessible areas of the West.

Threatened with extinction since the late 19th century, trumpeter swans were making their final stand in the high mountain country of the Yellowstone by the mid-1930's. Here, in the last major nesting area remaining to them in the continental United States, the Red Rock Lakes Refuge was established by the Federal Government in 1935 to protect the remnant flocks. With the protection of Federal and State Governments, the trumpeter has reestablished itself in its former nesting range throughout the entire Yellowstone Region. Wild trumpeters now nest in western Montana, Idaho, Wyoming, Oregon, South Dakota, Alaska, and two Canadian Provinces.

Latest figures place the trumpeter population at about 600 birds in the continental United States. An additional 1,500 birds are thought to live in Alaska and Canada.

Wrong Side of The Road (Continued from page 18)

pick up the standers because the game warden has come in sight.

The picture is changing fast. In another few years this type of hunting will be gone forever. If discourteous, thoughtless, and irresponsible hunters don't mend their ways, new rules and regulations will squeeze them out. We had all just as well forget the notion that it is God's given gift that everybody be able to hunt. It is no more so than that everybody be able to play golf on the links of a private club. Hunting on land one does not own is a privilege that can be destroyed by abuse.

Maybe we will get on the right side of the road this season, and not have so much friction between hunters, landowners, and "the law." I hope so. This nit-picking, hair-splitting, clock-watching attitude on the part of the game warden may seem uncalled for, but it is what people demand when they get fed up with some hunters who abuse their privileges, disregard laws, and make real nuisances of themselves. As in most problems involving people, a small per cent of the hunters stir up a very big per cent of the trouble. Thoughtful sportsmen have got to be doubly careful that they do not get tarred with the same brush as the few who persist in disregarding the rights and privileges of others.

CALLS GAIN POPULARITY

MORE and more sportsmen every year are discovering the added fun and increased kills that game calling brings to hunting, reports the P. S. Olt Company of Pekin, Illinois, manufacturers of 17 different animal and bird calls.

Olt has particularly noted a tremendous upsurge in the sale of calls other than the always popular duck and goose calls. The calls experiencing the greatest gains in use are crow, predator, squirrel, hawk and deer calls, although substantial increases have also occurred in the use of turkey, pheasant, quail and coon calls.

Mr. Olt went on to stress the importance of hunters learning how to use their calls properly if maximum results are to be obtained. To accomplish this, Olt suggests the use of instruction records which give basic information on the use of calls and allow the user to hear how the experts use the call. Thereafter, it is constant practice in the field that assures maximum talent and improved hunting success.

A wide variety of manufactured calls have been developed to lure both game and predatory species.

Return of The Turkey (Continued from page 7)

TABLE 2.

THE LIVE-TRAPPED WILD TURKEY RELEASES

Wildlife Mgt. Area	Number Released	Year(s) Released
Poor Valley	21	1955-56
Gullion Fork	9	1957-58
Poverty Creek	29	1959
Stony Creek	17	1959
Feather Camp	24	1959-60
Havens Refuge	14	1960
High Knob	28	1960
Clinch Mountain	19	1961
Walker Mountain	19	1962
Kimberling Creek	20	1962
Hidden Valley	11	1962

The 211 released wild turkeys consisted of 20 adult gobblers, 43 adult hens and 148 juveniles of both sexes.

Annual evaluations of the success of these restocked areas are made by District Biologists Charles Peery and Joe Coggin and their game managers. The 1962-63 evaluations by area of release are as follows:

Poor Valley Wildlife Management Area—This area is located on National Forest lands in Bland, Smyth and Tazewell counties. Prior to the release of the wild-trapped turkeys in 1955-56, this area received five straight years of game farm turkey stockings. These releases were unsuccessful. This area was opened to spring gobbler hunting in 1963 and two gobblers were harvested. The game manager has reported good results in both spring and fall census efforts.

Gullion Fork Wildlife Management Area—This area is located on National Forest lands in Bland and Wythe counties. The area received direct stockings and propagation pen releases of game farm turkeys prior to the 1957-58 live-trapped releases. Adults and young turkeys are present, according to the game manager, but so far there has been no spectacular increase in turkey numbers.

Poverty Creek Release Area—This area is located on National Forest lands in Montgomery County. The various game farm turkey stockings in this county proved unsuccessful. Spectacular results followed the 1959 live-trapped stocking. Just three hatching seasons following the release the area was opened to spring gobbler hunting. During this first hunting season in 1963 seven gobblers were harvested. Wild turkeys are firmly established in this area.

Stony Creek Wildlife Management Area—This area is located on National Forest lands in Giles County. Game farm turkeys were released in propagation pens in this area from 1954 to 1958. Under the dedicated efforts of Game Manager Lon Oliver a population of game farm turkeys was established. Some turkeys crossed with domestic stock in the area and became rather tame. The 1959 wild-trapped release was designed to improve the quality of the existing stock. The area was opened to spring gobbler hunting with a resulting harvest of three gobblers in 1963.

Feather Camp Wildlife Management Area—This area is located on National Forest lands in Washington County.

(Continued on next page)

Return of the Turkey (Continued)

Game farm turkeys made no headway in this area prior to the live-trapped releases of 1959-1960, and even the success of this stocking is questionable. Increased efforts are being made this year to determine the current status of the population.

Havens Refuge—This area is State owned and located in Roanoke County. Although no game farm releases were made on the refuge, scattered remnants of releases made in nearby range had been observed prior to the live-trapped stocking in 1960. Adult turkeys are now being observed throughout the refuge.

High Knob Wildlife Management Area—This area is located on National Forest lands in Wise and Scott counties. Propagation pen efforts were unsuccessful in this area prior to the 1960 live-trapped stocking. The game manager reported, during the fall and spring of 1962-63, that he saw some turkeys and received reports of others. Last year the stocking was evaluated as questionable. The game manager now is optimistic as to its success.

Clinch Mountain Wildlife Management Area—This area is located on State lands in Russell, Smyth and Tazewell counties. The release has been too recent for evaluation.

Walker Mountain Wildlife Management Area—This area is located on National Forest lands in Pulaski County. Although there were turkeys on the area prior to the live-trapped release, evidence indicated that these turkeys were inadequate in quality and numbers. The live-trapped stocking has been too recent for evaluation.

Kimberling Creek Release Area—This area is located on private land in Bland County. The release was made in the fall of 1962, too recent for evaluation at this time.

Hidden Valley Wildlife Management Area—This area is located on State lands in Russell and Washington County. The stocking will be completed this year.

This fall, stockings are being made in three additional areas in Dickenson, Russell, Scott, Washington and Wise counties.

After 30 years of effort the wild turkey restoration project does seem destined for success. Thirty years ago dedicated efforts were defeated by poorer quality wild turkey range, a poorer quality game farm turkey, and a poacher's philosophy. Today, the forests have grown into better turkey range, cannon-net traps have made it possible to utilize the finest wild stock, while efficient law enforcement and education have had a marked effect upon the poaching problem. These factors, working together, have tipped the balance.

Southwest Virginia's wild turkey populations are not all due to the introduction of live-trapped stock. Increases also have come from scattered remnants of native birds, from random and occasional southward movements of wild turkeys from established populations to the north, and from the survival and improvement through natural selection of a small segment of the game farm turkey releases. But live-trapped wild turkeys have been the key to success. They improve the quality of the stock in areas where survivors of game farm releases exist. They decrease the time it takes nature to repopulate a vacant range by the slow, creeping process of gradual or occasional movement of birds from adjoining areas. And they provide game managers with a means of "hedge-hopping" native birds into a distant or isolated range into which they might never be reintroduced by any conceivable natural process.

Mrs. F-57 Gets Around

A foot-loose wild turkey hen has joined game biologists of two states in an enthusiastic effort to repopulate the Appalachian Mountains with the species, and if her offspring turn out to be as successful in the enterprise as she has been the future of the wild turkey in southwest Virginia now seems assured.

Photo by Henry S. Mosby

A bit foot-loose, but a "good breeder," she has our best wishes for a long and productive life in Southwest Virginia.

On a warm September day in 1958 a game biologist of the West Virginia Department of Natural Resources trapped a wild turkey poult on Laurel Run in Pocahontas County, affixed band number F-57, and released the bird with the fervent hope that her tribe might increase. Seven days later she was trapped and released again in the same general area. Apparently tiring of the game she moved elsewhere and was not seen again by a biologist for two years.

In 1960 she was found to be Mrs. F-57, when she was trapped with a large brood on Two Mile Run in Greenbrier County. Then, having done her bit for wild turkey restoration in West Virginia, she disappeared from the Mountain State.

Again she avoided all biologists for two years, but turned up in Virginia with a brood which Andy Huffman netted last fall on Gathright Area.

Research biologist Wayne Bailey of West Virginia, writing to Andy Huffman about the record so far compiled by Mrs. F-57, noted that she had been wire trapped once and netted three times.

"The above events, plus the number of times she doubtless has been shot at and missed, indicate that hers has been a most eventful career," wrote Bailey. "She obviously is a good breeder and will, I trust, do her utmost to repopulate the southwestern Virginia range."

Bird of the Month: Myrtle Warbler

By DR. J. J. MURRAY
Lexington, Virginia

NEXT to the sparrows, the warblers are the most difficult small birds for the amateur bird watcher to learn. They move about so rapidly, some of them high in thick foliage, some of them in dense undergrowth, that it is not easy to see them clearly. In some species the female is very different from the male; in some the young birds in autumn are different again from either adult.

The warblers, or as they are more accurately designated wood warblers, are found only in the New World. About 150 species are known, of which a third have been recorded in the United States. There are also many additional races or subspecies. Subspecies are varieties or geographical races of a species which will interbreed when their ranges touch, while species will not normally interbreed. The myrtle warbler, for instance, has two very similar races, an eastern and a western. In Virginia we have listed 39 species, with a dozen additional subspecies.

This warbler is only a winter visitor to Virginia, reaching our state about the first of September and leaving around the end of May or earlier. It is much more common in spring and fall than in mid-winter. In order to find its nest or to see it feeding its young, one would have to go at least as far north as the mountains of New York or the higher and more northern parts of New England.

Since the myrtle warbler is with us when the trees are bare, it is more easily seen than most of our warblers. It is also rather easy to identify. Among the distinguishing marks are the four yellow patches: one on the crown, one on the rump, and one on each side of the breast. In the immature fall plumage the crown patch is partially hidden and the yellow side patches smaller, although they can generally be detected. The yellow on the lower back is always bright.

The spring male has a white throat, a black area on the side of the face, and a large black patch across the breast and down the sides. There is a good deal of dark on the back and tail. The outer tail feathers have white corners. The similar markings of the female are duller. The quick, flitting actions of the bird show it to be a warbler. Then, too, there are few other warblers here in the winter with which to confuse the myrtle.

The bird gets its name from its fondness for the fruit of the bayberry or myrtle bushes. Along the south Atlantic coast the myrtle warbler is sometimes seen literally in swarms when the bushes are laden with these berries. At such times they are so common as to be a nuisance to the bird watcher. When in his anxiety to find some interesting migrant he turns his head at every movement that catches his eye, nine times out of ten it will be a myrtle warbler that he sights. In his irritation he may forget that few birds are more attractive or more deserving of a second look than this little warbler.

Edited by HARRY GILLAM

Million Acres of Hunting Land Sought By I.W.L. Through "Hat Program"

A million acres of choice private hunting lands opened to the public will be the goal of Izaak Walton League through their Hunt America Time program. This year's theme, "Respect Private Property: Save Public Hunting," stresses congenial hunter-landowner relations, the prime objective of the HAT program. In addition to the publicity and educational aspects of the program, special "Hunting by Permission Only" signs, "Safety Zone" signs, and hunter pledge cards are furnished to local chapters to carry the program out on the ground.

Local clubs post the property of cooperating landowners with the appropriate signs and, in return, hunters sign identification cards pledging to be law abiding, to respect the rights and property of others, and to be careful with fire and firearms. Information and supplies will be available through the various Virginia chapters of the League.

Good Fishing Near Boydton

Mr. Norman Bjock, his wife and son show off a nice string of crappie taken from their pier on Eastland Creek (above). The nice largemouth (left) also came from this same area.

Seven Million Fish Lost to Pollution

More than seven million fish succumbed to water pollution in the United States last year, according to officials of the Public Health Service. Domestic sewage was listed as the number one killer, accounting for 33 million fish. Industrial wastes killed more than 1.1 million fish, mining operations accounted for 700,000, and agricultural poisons finished off another 91,000. One of the largest kills in 1962 occurred in the Anacostia River near Washington, D. C., when the dumping of 40 million gallons of raw sewage into the river killed over three million branch herring migrating upstream.

Six pollution caused fish kills were reported in Virginia waters involving 18,100 fish. Four miles of stream and two acres of lake were affected.

Bigger 'N' Better Every Year

The fishing in Lake Nelson is holding up fine, according to Frank McDorris of Monroe. The picture on the left was taken in November of 1962 while the one on the right of McDorris and his wife shows a string taken in July of 1963. All it takes is a little know-how.

Permission To Hunt Cards Available From Wardens

A limited number of small card forms with space for a hunter's name and a landowner's signature giving permission to hunt on his land have been prepared by the Game Commission and are available through Virginia game wardens. While these are no more "official" than any other form of written permission, they are neat and convenient and spell out the responsibility of both parties to the agreement. Contact your game warden for a supply.

Southeastern Committee Studies Foreign Game Bird Introductions

The Foreign Game Committee of the Southeastern Section of the Wildlife Society, headed by H. J. Tuttle of the Virginia Game Commission, held its first meeting in Virginia to begin formulation of a report which was submitted at the group's annual meeting in Hot Springs, Arkansas. Members of the Committee are (seated, left to right) Joe Hardy of Tennessee, Jim Keeler of Alabama, Lee Nelson of Kentucky, Herman Tuttle of Virginia; and (standing) Jack Sims of Louisiana, Clifford Williams of Louisiana, and Dr. Gardiner Bump of the U. S. Fish and Wildlife Service, Washington, D. C.

Tuttle is head of Virginia's Foreign Game Bird Introduction Program and other committee members occupy similar posts in other Southeastern states. Dr. Bump coordinates the program for the entire U. S. The group's report stressed the need for more and better coordinated research and more efficiency in developing the program through a free and spontaneous exchange of information. The report included a detailed eight point program for accomplishing these desired results. The committee drafted a resolution commending the U. S. Fish and Wildlife Service for its part in encouraging and co-ordinating the introduction of exotic game birds in the U. S.

Solid Point

A bird is a bird to My Lucky Major who, although confused, was dead serious when caught by a camera at 10 p.m., pointing a duck decoy on the edge of a back yard swimming pool. Major is owned by Olinn Durant II of Culpeper who sent in the interesting snapshot. The dog held the point for 15 minutes before losing interest.

Edited by DOROTHY ALLEN

Living Soil

Take three large, heavy paper bags and a small spade. Measure off an area one-foot square and collect the soil to a depth of two or three inches from three different sites, such as (1) below the leaves in a wood lot; (2) a pasture or fence row; (3) an eroded area where the topsoil is exposed.

As you remove the soil watch for burrows of worms and other animals. You may also find the eggs of certain insects singly or in masses or pods.

Pour out your samples on separate sheets of white paper of a good size. Carefully sort the soil, watching closely for small living things. Place the different kinds of animal life in separate bottles. Count the animal life belonging to each of the following groups: (1) worms (such as earthworms or night crawlers having no legs); (2) grubs (any worm-like animal with legs); (3) snails (snails without shells are called slugs); (4) insects (any hard-shelled, soft bodied or winged animal with three pairs of legs); (5) spiders, mites, ticks (animals with four pairs of legs); (6) animals with more than four pairs of legs; (7) others (any animal not falling into one of the above groups).

Which soil sample has the most small animal life?

The soil is the home of innumerable kinds of plant and animal life that range in size from those too small to be seen to large ones such as earthworms. These living organisms have a marked effect on the characteristics of the soil itself.

Earthworms are the most important group of the larger animals. They live in soils that are high in organic matter and not too sandy. The number of earthworms may range from a few hundred to more than a million per acre. Under favorable conditions between 200 and 1,000 pounds of earthworms may be present in an acre of soil.

The earthworms in an acre of soil pass several tons of soil through their bodies each year and, in so doing, make certain nutrients available to plants. Burrows left by earthworms let water and air move more freely through the soil. Earthworms also bring soil from lower levels to the surface, thus mixing the soil.

In addition to earthworms, some rodents, ants, snails, spiders, mites, millipedes, centipedes, and various other worms and insects spend all or a part of their lives in the soil. The effect of these animals on the soil is beneficial for the most part. Because of their burrowing habits, for example, a lot of soil mixing takes place. They improve soil aeration and drainage. Animals in the soil are vital and contribute greatly to the way a soil functions.

The last Thursday in August seven-year-old J. W. Davidson of Richmond went fishing. At a private pond in Buckingham County, J. W. tossed in a minnow and pulled out a large-mouth bass almost as big as himself. His surprise catch weighed 6 pounds 12 ounces.

Nature Activities Booklet For Teachers

A new booklet, "Nature Activities," is available to Virginia teachers for the asking. This 27 page Commission publication is made up of projects in connection with bird, plant, soil and land, water, and wildlife studies. The booklet also gives directions for performing experiments with materials found in most classrooms. Various techniques in the use of sawdust, bricks, crayons and blueprinting paper are included as well as a number of nature games that can be played indoors and out-of-doors.

Book Review

WASP FARM

Howard Ensign Evans writes a scientist's vivid account of the remarkable lives of wasps in his new book *Wasp Farm*. The author's personal account of these insects include their life cycles, their behavior, their infinite resourcefulness in the business of survival. From minutely detailed observations emerges a rich study in comparative behavior and a vivid picture of a fascinating part of the insect world. The Natural History Press, Garden City, New York, 1963; $3.95.

Edited by JIM KERRICK

From the Log of Guy W. Hughes

The most remarkable thing about the recent reduction in the number of boating fatalities and accidents announced by the U. S. Coast Guard in its annual report covering the year 1962 is not that 104 more persons are among the quick than there were a year ago or even that the total amount of property damage decreased in spite of a 13.9 per cent increase in the number of boats in use. It is not that boating is probably the only mass recreation activity to show a decrease in fatalities; rather it is the voluntary nature of the education program that has made these things possible.

While a few states now have or are beginning state-sponsored education programs, the bulk of the task of educating the tyro boatman has been performed by the Coast Guard Auxiliary, the U. S. Power Squadron, Boy Scouts, Red Cross, boating clubs, and marine dealers. Reliable estimates place the number of persons receiving free boating education at more than 300,000 a year.

What this massive effort has meant to average boatmen can be judged by the fact that boating, in spite of the fact that some 43 states have federally approved boat numbering systems, is still reasonably free of unnecessary regulation. Although some 47 state legislatures are meeting or have met in legislative sessions this year; although some 700 laws affecting the sport will be considered before the lawmakers adjourn, boat owners are almost everywhere respected as responsible sportsmen who are an asset to any community they choose to visit.

Those politicians who occasionally call for more restrictive boating legislation might well be reminded of Tolstoy's famous remark:

"I sit on a man's back, choking him and making him carry me, and yet assure myself and others that I am very sorry for him and wish to lighten his load by all possible means—except by getting off his back."

Those volunteers who have given up thousands of hours in the aggregate of their own time to teach inexperienced boatmen the simple rules of courtesy and common sense afloat are owed a debt of gratitude by everyone associated with the marine industry and the sport of boating.

They are helping to keep the law off our back.

Winter Storage

For many it is the end of the boating season and time to put your outboard motor away. Taking a few steps to be sure it is stored properly may save time, money and headaches next spring.

1. Lubricate internal parts. With the motor in fresh water, inject rust preventative oil into the carburetor intake while the motor is running at a fast idle. Disconnect the fuel line and let the motor run for a short time before injecting the oil. This will remove fuel from the carburetor and prevent varnish or gum deposits from forming during storage. Before the fuel runs out and the motor stops, inject the oil. Turn off the motor while it is smoking heavily.

2. Drain the water pump. After removing the motor from the water, place it in an upright position. With the engine in neutral, give the starter rope several slow pulls. This will remove the water from the pump.

3. Fuel system. Remove the fuel bowl and filter and clean them with neutral spirits. Drain and clean the fuel tank and hose.

4. Remove propeller. Clean and lubricate the propeller shaft and replace the drive pin if it is worn. If the propeller is bent or nicked, have it repaired or replaced.

5. Drain and refill gear case. This is very important. If water is detected in the drain oil, have the motor checked by a marine dealer. Be sure to refill the gear case with the type of lubricant recommended by the manufacturer.

6. Protect external parts. Wipe off all exterior metallic parts of the motor with a lightly oiled cloth. Apply wax to Fiberglas covers.

7. Storage. Store the motor in an upright position in a dry and well ventilated area. Do not store the motor in an airtight container.

8. Battery. If your motor is equipped with electric starting, the battery should be fully charged and stored in a cool dry place.

Keep Your Boat Cover Tied Down When Trailering

Unless your boat cover is tied down properly, a cover can billow out like a parachute when traveling at high speed. This produces a needless strain on the cover and tie-downs, and cuts your gas mileage.

One solution is to run a piece of rope back and forth over the cover to keep it from flapping in the breeze. Tie the rope to your trailer.

If your boat is equipped with a canvas top that folds down in front of the windshield, make sure it is secured before you start trailering. The wind can get under it causing the top to be torn.

A Life Preserver For Your Pet

A pet life preserver makes it possible for you to take your pet aboard without worry. The jacket is filled with Coast Guard approved kapok and covered with a drip dry cotton.

The collar is nautically decorated with rhinestones that make the collar look glamorous in the daytime and glitter at night making it easier to find your pet in darkness.

Colors are red, orange and green. The size of the preserver depends on the size of your pet: 5-10 pounds, small; 10-15 pounds, medium; 15-20 pounds, large; and 20-40 pounds, extra large.

Contact your local sporting goods store or your favorite marina for additional information.

Don't Use Boat As A Storage Bin

While your boat is laid up for winter, do not use it as a storage bin for heavy equipment. This can cause the bottom to become distorted.

TO MAIL

- Fold this flap first

BEFORE SEALING

- Is your remittance enclosed?
- Is check or money order made payable to
  THE TREASURER OF VIRGINIA?
- Are addresses complete and correct?
- Have you checked "new" or "renewed"
  for each subscription?

CHECK ONE

☐ Please send cards announcing the gift

☐ I have already sent cards announcing the gift

Postage Will be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1646 RICHMOND, VA.

Commission of Game and Inland Fisheries

VIRGINIA WILDLIFE

P. O. Box 1642

Richmond, Virginia 23213

LETTERS

(Continued from page 3)

most beautiful sections. Their scenery is usually most spectacular for they have cut their way deep through a canyon or gorge as they flow over their rapids, churned into white water that is the delight of the fisherman, the canoeist, and the lover of the secluded wilderness. Nearly always these fast water sections are deep in a canyon far away from roads and trucks, and motorboats and civilization. These are rare spots that civilization has not yet been able to smother with its creeping destruction of all primitive beauty. Often these secluded spots are the last refuge of wildlife.

It is a sad commentary on our way of doing things when we consider that in spite of all our work to preserve natural beauty and wilderness, or what little there is left of it, we still maintain a great agency intent upon the destruction of these areas we wish to preserve. I am referring here to the Army Engineer Corps and the government agencies that give them the power to dam and destroy these beautiful fast water rivers.

What few fast water sections we have are very dear. They cannot be created. Engineers can make millions of acres of flat water, but they cannot make 100 feet of fast water. Once destroyed, the beautiful white water sections of our rivers are gone forever.

It is indeed unfortunate that when the Army Engineers see a beautiful fast river dashing and tumbling and splashing its way through a beautiful canyon, or through a wilderness it appears that all they can see in it is a narrow place to put up an immense dam. They would like to kill this beautiful river and turn it into some more flat water, arguing that fast water fishing, and canoeing and wilderness enjoyment isn't recreation, that wildlife doesn't count, and that instead we need a mud-surrounded lake for motorboats and snack bars, and a trashy road all around.

Unless we wake up we will lose most of our most beautiful and exciting river sections, and they will be gone, never to return.

There is now a great project underway to dam the Rappahannock just above Fredericksburg. The Engineers say we need this beautiful river's death in order to make more recreational water. This is the only fast water river on the East Coast that is not either spoiled by dams or city sewerage. Should we kill it to make more flat water when Fredericksburg already sits with its feet dangling in the flat tide water that reaches all the way to England?

Should we put a dam across every white water section of every river just because it has a narrow place for one? Should not the Engineers be made to realize that these natural white water areas are irreplaceable? Must all qualities of natural beauty and fast water sport and the quiet of wilderness be blind [spots] to the Engineers in their thirst to keep themselves busy on great dams?

Instead of one immense dam, why not more small ones on the upper reaches of the rivers where they can supplement the flow of the rivers in dry weather, and at the same time be a more effective means of flood control for the entire river?

Let us take a long look at the present program to kill out fast rivers. They are rare things, and beautiful; once gone they are gone forever. Nature has given us very few of these white water rivers. Let us not kill the goose that continues everlastingly to lay the golden eggs of fast water fishing and canoeing and wilderness enjoyment in areas inaccessible to the noisy motorboat, the trucks, and the trash of civilization. We will need these rare areas more and more as our population crowds and slithers past itself in a cancerous, uncontrolled growth.

Randy Carter
Warrenton, Virginia

Shades of November on an Eastern Virginia Highway

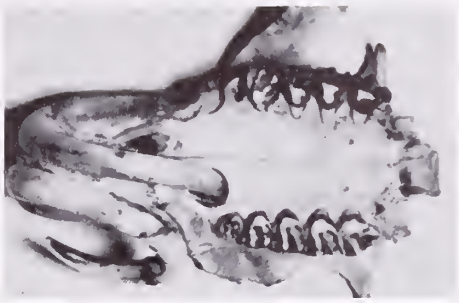
AS I drove alone, from Manassas to Newport News on a beautiful November Sunday afternoon, the autumn colors and sights at hand along the highway brought to me the following descriptions:

The rust of oak.
The freckled sycamore.
The old gold of hickory.
The shadowy green of scrub pine.
The flaming torch of the tulip tree.
A gaudy hillside with its suit of sumac.
Sage grass voluntarily gone to hay on an aging pasture.
A gay shank of woody giants in their coat of many colors.
A sorrowful maple weeping golden tears at summer's passing.
A walnut in the nude, its bony arms raised pleading to heaven.
A swampy cemetery of dead gums, mournful monuments to a tragic flood tide.
A solemn procession of soybean shocks like little old ladies at a friend's last rites.
Tired ragweeds in a stubble patch, eager for winter's festal white to dye her aging brown.
Timeless honeysuckle showing off her green fall coat after more fickle greens have fallen away.

Merle Crouse
Quito, Ecuador

Woodchuck Oddity

ENCLOSED are photos we took of a woodchuck skull which was loaned to me by Mr. Vester Stampler, Box 227, Wytheville, Virginia. This woodchuck was shot a few weeks ago by a Mr. Beanford Wright, Fire Warden, Wythe District, U. S. Forest Service, in the Cripple Creek area of Wythe County. He shot the animal while it was feeding and reported that it appeared normal when shot. Mr. Wright noticed the malformation of the teeth when he picked up the animal, so removed the head for cleaning. It was of medium size and appeared to be in fair condition. I feel sure that it was not a young of this year, in spite of its medium size, because an animal probably couldn't grow that much tooth tissue in less than one year. It was no doubt several years of age.



V.P.I. Wildlife Research Unit photos

As you can see on the photographs, the one incisor penetrated the palatine bone and emerged into the nasal passage. The whole malocclusion was caused by a break in the left lower jaw; this no doubt occurred when the animal was quite young. Notice how the teeth in this jaw are out of alignment, the jaw is shortened and thick in the area of the break.

Burd S. McGinnes
Wildlife Research Unit Leader
V.P.I., Blacksburg

"Big Tree," a 1200 lb. bull elk, looks over his surroundings at the Defense General Supply Center near Richmond. He is on loan from the Washington National Zoo to add new blood to the Richmond herd. His last set of antlers measured 54 inches, just short of the world's record. The Center inherited the herd when it purchased the Bellwood farm property 20 years ago. "Big Tree" arrived last fall.

U.S. Army photo

WHITE-TAILED DEER

HUMMINGBIRDS AND TRUMPET CREEPER

BLUEBIRDS

RACCOON

SNOWY OWL

RED FOX

BLUE JAY

PAINTED TURTLES

BY POPULAR DEMAND

SET OF 8 BEAUTIFUL WILDLIFE FULL COLOR COVER REPRINTS

$1.00 FOR THE FULL SET OF 8

If you have liked *Virginia Wildlife's* cover art you will like these reproductions even more. Eight of the most frequently asked for covers from 1962 and 1963 issues have been handsomely reproduced on heavy stock with ½ inch white border. Suitable for framing, one of these sets will be a treasured addition to any wildlife picture collection.

You will want to order a set for yourself and probably several as gifts for your friends. It's an ideal way to get some of your Christmas shopping done early!

Make your check or money order payable to the *Treasurer of Virginia*, and send it with your order to the Commission of Game and Inland Fisheries, Box 1642, Richmond 13, Virginia. Please do not send cash through the mail.